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RETROSPECTION AND INTROSPECTION: OUR OPPORTUNITIES AND OBLIGATIONS *

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In a retrospective and introspective gynecologic and obstetric review, at the end of the first decade of the twentieth century, one is first impressed with the astonishing progress which has been made in both of these branches in the generation just passed. One is next struck by the wide-spread interest in them everywhere and by the general adoption of the best modern methods in the treatment of gynecologic and obstetric patients, not only in the great medical centers and large cities, but in the small hospitals of many towns or villages and also in the homes of patients.

Happily it may now be said that the seed sown by Holmes and Semmelweis in an unprepared and refractory soil during the early forties of the nineteenth century, has, after more than sixty years of cultivation and forcing at the hands of a few obstetric nurserymen, grown to receive universal recognition. The practical adoption of a more or less rigid surgical asepsis is now approved and attempted in almost all obstetric work everywhere and as a consequence puerperal infection, or so-called puerperal fever, is vastly less frequent and virulent than of old. It is to be regretted that infections as a consequence of induced abortion are not diminished in proportion; but "being performed without antiseptic precautions, generally by illiterate persons of either sex, sometimes by the woman on herself or by the unskilled hand of a sympathizing neighbor, it slays its thousands" as heretofore.

It is very gratifying to find really good obstetric and gynecologic work now being done by one or more capable and conscientious men in almost every community in America. Gynecologic and obstetric wisdom and skill are no longer limited to a few professors in the great universities, but thanks to the unselfishness of the wise and skilful teachers of the last generation, their knowledge and experience have been freely passed along to the many of this generation.

In the treatment of all diseases everywhere in the human body, surgery must be regarded as a choice of evils, and in its adoption as a remedy for disease it must be demonstrated to be the lesser evil. Its consequences must be thought less burdensome and, on the whole, in an average case, less dangerous than the disease for the cure or relief of which it is prescribed.

Surgery usually contemplates mutilation as a remedy and, excepting in plastic and reconstructive surgery, the removal of some organ or member or tissue is inevitable. Ample justification for such mutilation must first be had. Furthermore, it should be regarded as reasonably certain that the result will be more than a mere anatomical elimination of a diseased organ; that is, that the patient will be comforted and benefited as a result of the operation and not be left as miserable as before, or even made worse, notwithstanding the successful removal of a pathologic specimen.

The responsibility of the surgeon in recommending an operation extends even farther than this, for he must feel assured that the benefits to be derived from the operation justify the probable or known risks of the operation under the conditions which attend it at the hands of him who attempts it.

The discomfort and temporary disability of the patient as a result of the operation must also be considered. Last, but not least, the cost of the operation to the patient should be counted, for he is often burdened for months or years by such expense. In short, everything considered, the game must be worth the candle.

Operations on neurasthenic and nervous invalids, and for epilepsy and insanity, always demand the nicest surgical judgment and a wide knowledge of the pathology of nervous disorders, to save surgery from being discredited. It is, I believe, generally conceded at this time that nothing short of actual disease in the organ to be operated on, with grave incident symptoms or apparent risk to life, warrants surgery for such invalids. We know how effective psychic treatment may be for these patients. All of us have seen those for whom we have conscientiously prescribed surgery recover without it; and we remember them well for they and their friends take particular delight in reminding us of our human fallibility.

I am aware that there are many who will regard these views as idealistic, utopian, and quite impracticable in their application to one's daily work. My plea, however, is for a careful, well-considered, ripe surgical judgment which comprehends all of the essential details that may bear on the case, and I regard all of the factors cited as both relevant and important in their bearing on the patient's interests.

Nearly twenty years ago one of the ablest gynecologists of that day[1] closed his "Introductory" to a well-known text-book with this paragraph:

> In conclusion, the riper my experience the more firmly am I convinced that in the treatment of woman's diseases the possibility of a nerve origin, or of a nerve complication, should be the *fore*-thought and not the *hind*-thought of the

* Chairman's Address before the Section on Obstetrics and Gynecology of the American Medical Association, at the Sixty-Second Annual Session, held at Los Angeles, June, 1911.

1. Goodell, William: Introduction to Keating Coe's Gynecology.

physician. I therefore have arrived at a very short gynecologic creed: I believe that the physician who recognizes the complexity of woman's nervous organization and appreciates its tyranny will touch her well-being at more points, and with a keener perception of its wants, than the one who holds the opinion that woman is woman because she has a womb.

The teaching and example of this great and honest man (he was my teacher and master), indeed the force and influence of this single paragraph from his pen, have done much to wipe out and eliminate gynecologic surgery for the cure of vague nervous and neurasthenic symptoms, to the infinite credit of our profession and the enormous benefit of womankind.

For the attainment of the best results in any surgical work, but particularly in the delicate and difficult field of obstetric and gynecologic surgery, certain prerequisites are essential.

First, as has been said, a good working knowledge of abdominal and pelvic pathology is required and an ample experience and training in the interpretation of the objective and symptomatic signs of disease are necessary to a reasonably exact diagnosis; and diagnosis is the foundation on which all good treatment rests, whether it be medical or surgical.

The menace to modern obstetric, gynecologic and abdominal surgery is the horde of half-equipped and untrained individuals who have invaded the field without the wisdom or experience to appreciate their limitations, or the conscience to recognize the enormity of their sins of omission and commission.

That a service of reasonable duration as an assistant to an experienced surgeon, or the broadening influence of a few years of general practice should precede one's advent into abdominal, obstetric and gynecologic surgery as a specialty does not deter the ambitious and self-confident embryo surgeon. He emerges from the medical school, or from the hospital in which he may have served a few months as an intern, as a full-fledged surgeon with a self-reliance and assurance that is appalling to those who watch his course.

The existence of this evil has been pointed out repeatedly, but as yet little effort has been made to check it, though a reasonable restriction in the extension of hospital facilities to those only who can show sufficient training and experience in the work they attempt and a reasonable degree of personal integrity, would, in the main, correct it.

This is a duty which directors and trustees owe their hospitals, those who contribute to their support, and the qualified surgeons on the staff, to say nothing of their duty to the trusting but helpless patients whom they admit for maltreatment by the incompetents who are working under their protection.

This abuse of the privileges of the open hospital I have referred to elsewhere,[2] and I have also suggested a remedy that I believe would eliminate the worst features of the evil.

It was suggested that a board of hospital counselors be created in each city, by the appointment of one or more representatives from the staff of each hospital, said board to devise ways and means for the control of this and other common hospital abuses. It is little credit or honor for a reputable and conscientious surgeon to hold a place on the staff of a hospital in the administration of the affairs of which he has little or no voice and in which incompetent and unscrupulous practitioners are accorded the same facilities and privileges as he.

Those who are permitted to enjoy the facilities of our hospitals for serious major surgical work should, in every instance, be obliged to apply formally for such permission, and such applications should be accompanied by evidence of the fitness of the applicant for the work he aspires to undertake, and of his integrity and honesty in his relations with his patients and his fellow practitioners. These credentials should be examined and passed on by such a board as has been suggested, or, if for any reason this is impracticable, by a committee of the staff of each hospital so applied to.

That such privileges are freely granted by non-medical boards of directors or, too often, by a non-medical superintendent after insufficient inquiry into the qualifications and integrity of purpose of the applicant, we all know, and what the consequences are we know. Exhibitions of carelessness, recklessness, indifference, ignorance, and technical incapacity are in evidence from day to day, and, not infrequently, unmistakable evidences of definite criminal intent, as in the unjustified induction of abortion, are apparent under our very noses. It is no uncommon thing to find persons operating in our hospitals who are generally known and recognized in the community as commission-payers or abortionists; nevertheless, they are members in good standing in their respective district medical societies.

It is no exaggeration to state that at least one-half of the hospitals in the United States are church hospitals.

Notwithstanding this, however, unwarranted primary or secondary operations for emptying the pregnant uterus are frequently performed within their walls. The names of the patron saints of the healing art are thus daily employed to cover the criminal practices of the abortionist and his commission-paying accomplice; and, as of old, women and wealth are the prostituting agencies.

No one could wish to deny the benefits of sanctuary in the hospital to a desperate and despairing woman whose life is threatened by an incomplete abortion, however induced, but such humanitarianism should not be made a cloak to cover the operations of those who make it a business to perform the first step of such operations in their offices or the homes of patients, and the second step in the hospital and under its protection.

Neither should the hospitals harbor, shelter or dignify those "surgeons" who are in collusion with abortionists and who knowingly do the second step of the operation for them in the hospital, too often on a commission basis.

This situation calls for rigid supervision and control on the part of the hospitals; a censorship which can be intelligently exercised only through the cooperation of a staff of medical men, and which must be brought about by a careful process of elimination and selection of those who are to be accorded hospital privileges.

Why does such a state of things exist and why can it not be controlled? It is painful to admit it, but candor compels us to state that such things are possible merely because of the same scramble for business on the part of the hospital that actuates the commission-paying surgeon. It is the curse of commercialism. It would be far better for humanity if such hospitals were closed forever and such physicians were driven from the organized profession than to allow this degeneracy to disgrace another decadent generation.

If corrupt practices and inadequate preparation for difficult and serious special work are permitted to exist

2. Address of the President of the Colorado State Medical Society, 1906.

by the organized medical profession and the hospital authorities, then their regulation must ultimately be brought about through the enactment of state laws which shall specify who may and who may not do major surgery, and under what conditions and on the proof of what scientific and moral qualifications such work may be undertaken. As a matter of fact, such a law was drawn and presented for passage in one of the state legislative bodies two years ago. It will certainly be better for the organized medical profession and the hospitals to regulate themselves properly than to compel the law to intervene and impose irksome restrictions which may work a hardship on many who are worthy and capable.

In these remarks no particular community and no particular institution is referred to. It is a deplorable fact that with the exception of some of the cities on the Atlantic coast, and a few isolated examples elsewhere, such conditions are more or less prevalent throughout the United States, but they are particularly prevalent in the West.

It would be interesting to determine how far these demoralizing conditions in the medical profession are due to the commercial medical school as a nursery of medical graft and to what extent advanced requirements for admission to the study of medicine will eliminate criminal and unethical practices.

Basing an opinion on the general principles governing the relations of ignorance to immorality, one would expect higher and better education to produce an ethically and morally higher type of physician. Our Council on Medical Education and those in charge of the Carnegie Foundation may, in raising the standard for admission to medical colleges and of the colleges themselves, incidentally also raise the moral standard of the graduates.

The real responsibility for the continuation of these evils, however, must be placed where it belongs. It is primarily our own. So long as we condone the corrupt practices employed by the incompetent and unscrupulous, so long as we tolerate them in our societies and hospitals, and humiliate ourselves and our profession by meeting them in consultation and on the rostrum, just so long are we barred from complaint if they are allowed to practice in our hospitals, or if they find that political preferment on health boards, in municipal hospitals, and in other civic positions to which they could not aspire if they were without the pale of organized medicine.

Disagreeable as the picture and its contemplation may be, we can no longer turn our heads and look the other way. Our obligation and opportunity are before us.

There are no more important factors which make for good results in all surgical work than organization, coordination, and cooperation in hospital direction and administration. He who operates in a hospital in which he can secure for himself and his patients just such service as he may require has a definite advantage over his colleague who must accept the assistance at his operations of any untrained intern who may be assigned to him, and have his patient anesthetized by another of whose qualifications he knows little or nothing. There are many excellent surgeons in this land who, with the hospital facilities and organization of the Mayos, of Ochsner, of Deaver, or of Howard Kelly, could do equally good work and secure like results.

When in attendance at the recent Fifth International Congress of Obstetrics and Gynecology at St. Petersburg, Russia, I witnessed the remarkably dextrous and skilful work of Professor de Ott. I have rarely seen anywhere more beautifully precise and exact method in surgical technic than I witnessed there, and while I accord unqualified praise to Professor de Ott for his personal skill and dexterity, I was most impressed with Ott's skill as an organizer, and with the precision with which each assistant did her share of the work. All but one of them were women.

His first assistant has been working with him for nine years and some of the others for even a much longer period, and their machine-like "readiness to serve" was worth a trip to St. Petersburg to behold. These details make for results, and any surgeon who can command his own force of trained and educated assistants, to his own ends and methods, can decrease his mortality and facilitate both his work and the recovery of his patients.

I once operated in a small hospital where for me this was possible and I have never had such results nor such satisfaction in my work before or since, as in that little institution. One has, however, only so much energy and vitality to expend and if one is using it to operate and finance a hospital, one has too little left to give to his surgical work. To attempt to do both is to court physical bankruptcy. Operating a hospital and operating in one is certainly "a hard way to serve the Lord."

Intelligent, skilful, dependable cooperation is nowhere more important to the surgeon than at the head of the table. The surgeon should never have to think of or consider the administration of the anesthetic during an operation; and if it be properly administered and wisely chosen he need not think of it.

The ignorant, apprehensive, unskilled and untrained anesthetist is often more of a menace to the patient than the operation, and he is always a source of annoyance and anxiety to the operator. I have recently called attention elsewhere to the fearful abuse of so-called hypodermic stimulation during and after surgical operations. I am convinced that to this dangerous practice on the part of surgeons, anesthetists, interns and nurses, the loss of many valuable lives could be traced. I feel certain that it is rarely required, and that its habitual employment is mischievous and dangerous, and that one who commonly resorts to it thus confesses his incapacity.

The name "hypodermic stimulation" is a misnomer, as the drugs commonly employed are rarely true stimulants. Even if they were so for the time being, their ultimate or secondary effect is nevertheless reactionary and definitely harmful.

When there is a coordinate organization in the operating room and a really skilful anesthetist, who has been chosen by an experienced and skilful surgeon, hypodermic stimulation during and after operations is very rarely employed.

On June 5, 1877, William Goodell became professor of clinical gynecology in the University of Pennsylvania. The creation of this, the first chair of gynecology in our medical schools, and his selection to fill it, mark an epoch in the development of gynecologic history. Nearly coincident as it was with the discovery of the principle of antisepsis by Lord Lister and the practical application of it in our hospitals, this period may be fixed as the date of the birth of gynecology as a science; although the eminent work of McDowell, Sims, Emmet, Atlee, and many others antedated it.

Obstetric practice also was influenced by the adoption of the new antiseptic gospel and the whole literature of the subject had to be rewritten; hospitals for the lying-in to be remodeled and, though more slowly, the obstet-

ric art of the family physician was reconstructed along the newer lines and it ultimately partook more nearly of the exact working formula and certain results of a science.

Thus, the new gynecologic science and the old obstetric art took on themselves about this time the responsibilities and obligations of the enlarged surgical field into which Lister's discovery had thrust them. Now the successful practice of obstetrics and gynecology demands a most complete understanding and practical application of correct surgical principles, as in no other field of surgical work is the danger from infection greater or nicety of technic more essential to success.

What the pioneers of that period did in developing and establishing the new obstetric and gynecologic sciences need not be related. The names of Goodell, Joseph Eastman, Spencer Wells, Lawson Tate, E. C. Dudley, Joseph Price, Howard Kelly, Polk, Pryor, Edebohls, and many others will be remembered as those of benefactors of humanity; for they not only established gynecologic and obstetric surgery on a scientific basis, but in abdominal surgery they blazed the way for the general surgeon.

I have long felt that the title given this section works an injustice to those who do, and to those who should, work in it. This section should be designated as the "Section on Obstetrics, Gynecology, and Abdominal Surgery," and so come into its own. This title indicates the scope of the work of the Section and of those who labor in it. It covers a field which has been developed by the efforts of our colleagues and coworkers during the past generation, a field which we still occupy and are still developing and the prestige of the growth and development of which we are entitled to participate in and enjoy.

The greater dignity and slightly broader scope which this title implies would increase the interest in our section work and bring back to us some of those who have been lured into other pastures. The inclusion of the reference to abdominal surgery merely concedes a belated and too long-deferred right to a title and a field of work which this section should at least share because of original discovery and development; long cultivation and present possession; and in contesting a title no better claim than this can possibly be established.

That the capable and experienced gynecologic or obstetric surgeon must be prepared to properly perform any intra-abdominal operation from an intestinal resection, gastrostomy, or gall-bladder operation to a hysterectomy, so long as absolutely exact diagnosis previous to operation is sometimes impossible, must be conceded. That he is prepared to meet such emergencies we know, and that he is entitled to this descriptive designation of the work in which he is daily engaged is beyond question.

The obstetric surgeon with experience in the performance of abdominal operations for Cesarean section, puerperal infection, thrombophlebitis and such complications as he may encounter, must be capable of doing any intra-abdominal operation, for none can be more delicate or difficult than these.

The gynecologic surgeon who is capable of dealing successfully with old pelvic adhesions from pus tubes or pelvic abscesses and the intestinal and appendical lesions and complications incident thereto, is certainly capable of performing any of the other intra-abdominal operations. His long, constant, daily training in this abdominal work fits him to meet all intra-abdominal pathology with a skill and resourcefulness bred of experience.

Since we do these things with propriety and skill, why may we not be known to the world and to our fellows as doing them, through a correct title for the Section in which we do our work?

At a meeting of this Section in St. Louis last year the eminent and skilful surgeon who is now the President of the American Medical Association said in opening his discussion on uterine retroflexion and its treatment: "Fellow gynecologists, I address you in this discussion as fellow gynecologists, because it is all surgical, and all of the gynecologists are going to become general surgeons."

This remark was doubtless intended to be semifacetious, but it nevertheless expressed the heretofore half-understood and implied reverse statement that all general surgeons are going to become gynecologists. In the phraseology of the prospector, we are warned that though we "grubstaked" the general surgeons in the gynecologic and abdominal field, they are going to "jump the claim" if they can.

I believe that the partial breaking down of the line of demarcation between the general surgeon on one hand, and the obstetric and gynecologic surgeon on the other, has been, on the whole, unfortunate for both. My observation has been that the general surgeon is, as a rule, a poor obstetric and gynecologic diagnostician, pathologist and operator, and that he is at the greatest disadvantage when he attempts plastic, pelvic, or vaginal work. Also the average gynecologic and obstetric surgeon is often an indifferent operator when working outside of his pelvic and abdominal limitations, but particularly when he attempts brain and bone surgery or the treatment of fractures, etc. Either surgeon is then working in a field in which his diagnostic, pathologic, and technical training and experience have not fitted him to render the best service of which he is capable. At the present time the fields of surgery and medicine are so large and so varied that no single individual can hope to cover them all and do the best work possible for his patients along all lines.

Let us try to swing the pendulum back to a perpendicular and redraw the differential line between the fields of surgical activity, and, as a first effort, let us determine to have the name of this Section altered to meet the conditions and circumstances under which we are working, and then limit our labors accordingly.

In making this suggestion I am not actuated by any wish to appropriate for ourselves the exclusive and sole practice in abdominal surgery, even if it were possible to do so, and of course it is neither possible nor desirable, but to bestow on this Section a dignified descriptive name covering our daily occupation as individuals, and our annual endeavor to benefit humanity and each other.

Though the title suggested for our Section may not now meet with unanimous approval, and notwithstanding the opposition which may be met from other sources in bringing about the change of name, I feel justified in suggesting it at this time with the hope that what appears to me to be a fitting and eminently desirable substitute for the present name may grow in favor and ultimately become a practical possibility.

The greatest skill of the best and most highly trained gynecologist and obstetrician is not displayed in the operating theater, but in his intimate knowledge of pelvic and abdominal pathology, his ability to base a correct diagnosis thereon and prescribe treatment, either

medical or surgical, which may restore the patient to health.

Operators are numerous, far too numerous; pathologists and diagnosticians are few, far too few.

Prolonged general surgical training does not tend to create a skilled obstetric and gynecologic pathologist and diagnostician, or one who knows and appreciates the possibilities and advantages of non-operative methods for many pelvic diseases. On the other hand, a gynecologic and obstetric operator is evolved—and of these there are already more than enough.

The growth and development of gynecologic and obstetric wisdom was so rapid during the last two decades of the last century that our achievement in this field during the first decade of this century seems meager by comparison, and the literature of to-day presents relatively little that is really new.

Can it be possible that we have attained our full growth, or, resting on our oars, are we content with what we have done and satisfied to press no farther forward, though facing such unsolved problems as the prevention and cure of cancer and of the mysterious toxemias of pregnancy; or are we passing through a period of introspection and of analysis of what has been accomplished heretofore, and of elimination of the unnecessary and the undesirable?

The crystallization and concentration of ideas, the simplification of practice, and the determination of what not to do, that we have done before, is progress of the best sort. Though this may not be our banner constructive period, it will be none the less valuable to humanity if we learn to see our mistakes of the past and to avoid them in the future.

In closing, I thank you for the great honor you have conferred on me in electing me your Chairman. Assuring you of my appreciation of your cooperation in making this meeting so much of a success, and with particular gratitude to our faithful and unusually capable Secretary, Dr. Miller, I return to your ranks to render such aid and support to my successors in this office as may be in my power.

310 Metropolitan Building.

THE THERAPEUTIC APPLICATION OF TUBERCULIN IN THE TREATMENT OF AMBULATORY PULMONARY TUBERCULOSIS *

ITS INDICATIONS AND CONTRA-INDICATIONS

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Tuberculin is a valuable remedy in pulmonary tuberculosis when the lesion is limited in extent, and when the disease is pursuing a slow course with neither much febrile manifestation nor much general systemic disturbance. In afebrile advanced pulmonary tuberculosis, with fair appetite and digestion and little or no systemic disturbance, it may also be valuable. It must be used with caution in young tuberculous patients with actively incipient lesions, since frequently the injection of very minute doses produces a most vigorous reaction, whereas large doses in old tuberculous subjects do not produce any reaction at all; it should always be borne in mind that in recent infection and in the exacerbations which occasionally follow an old lesion, the reaction may be severe even when infinitesimal doses have been applied.

The indications for the use of tuberculin are usually in those early cases which have long been under observation and in which the tendency to progressive extension of the tuberculous process in the lungs is either very slow or is held in abeyance, and in those non-active advanced cases in which the process is stationary but a few bacilli are still demonstrable in the sputum.

In all cases of advanced pulmonary tuberculosis with either laryngeal, renal or intestinal complications, in cases with high temperature showing a mixed infection, in cases inclined to pulmonary hemorrhages, in cases of pulmonary tuberculosis in old or cachectic individuals, in cases of patients who are prostrated from the tuberculous infection, showing a general disturbance, and in all rapidly progressing cases, the use of tuberculin is strictly contra-indicated.

The therapeutic method of treatment consists in the use of tuberculin in very small and minute doses, beginning usually with 1/10 of a millimilligram and progressively increasing the dose until comparatively large doses have been administered, without producing the slightest reaction in the organism. It should be given by the subcutaneous method, at fixed and regular intervals. Long experience has taught that this injection is productive of the greatest good when the interval is about seven days. The previous point of injection should always be carefully examined before another is given, and if a little thickening or induration still lingers, the dose must not be repeated until all evidence of it has disappeared. Those cases will do best in which from the beginning of the treatment until immunization is reached no disturbance has been observed or in which throughout the treatment no reaction was manifested. It is not necessary, in order to produce tuberculin immunity, that enormously large doses of tuberculin should be given. Usually when doses from 1/10 to 1 milligram have been reached, immunization is fairly well established. This is evidenced by an increase of body weight, approximately normal temperature for the twenty-four hours, a pulse of fairly good tension, good appetite and a general appearance of health. From the onset it must be borne in mind that tuberculin does not produce a tuberculosis immunity, does not cure tuberculosis, but only establishes a tuberculin immunity; that is, by its use in minute doses the patient's resisting power is increased and the tendency to relapses lessened. Tuberculin is a most valuable weapon in our hands, but it is very essential that all the other supplementary forces—synergistic adjuncts—be used, such as diet, hygiene, fresh air, peace of mind, etc., in combination with tuberculin in treating pulmonary tuberculous patients.

In order to demonstrate what effect tuberculin would have on tuberculous patients, Drs. Karl and Silvio von Ruck, at their sanatorium at Asheville, conducted a series of well-observed experiments, the results of which were reported in the medical literature only recently. Numerous and extensive blood examinations were made on tuberculous patients, some of whom were treated with and others without tuberculin. These experiments proved conclusively that during the tuberculin treatment the agglutinating power of the blood was raised from 100 to 150 per cent., and remained high for years after, and at the same time the alkalinity of the blood was considerably increased; in contrast to this, no such blood-changes were demonstrable on patients who were treated on strictly dietetic-hygienic lines and without tuberculin.

* Read before the West Side Branch, Chicago Medical Society, April 14, 1911.

CLINICAL REPORTS

At the Tuberculosis Clinic of the Chicago Tuberculosis Institute at Rush Medical College, which is now known as one of the tuberculosis dispensaries of the new Chicago Municipal Sanitarium, in the three years of clinical work, over 1,800 patients, tuberculous and non-tuberculous, have been examined, diagnosed and cared for. A number of those who were tuberculous and in whom the conditions were favorable or suitable, received in connection with the usual treatment in vogue, in ambulatory cases, the progressive tuberculin medication. As a therapeutic measure, about three years ago the use of Koch's old tuberculin was begun, in proper dilution, and since then it has been given constantly, in all many hundreds of injections being made. It was early observable that in many cases the progressively increasing dosage of tuberculin went hand in hand with a steadily increasing body weight. I shall try to summarize the result in only eleven out of a total of fifty-two case histories, selected from a large number of examinations. All of the patients were considered suitable for the tuberculin treatment and nearly all did well under the tuberculin régime. Of the entire number none received less than ten subcutaneous injections, one patient receiving as many as 105. All cases were under observation for some time before the initial subdermal medication was given.

The method of preparing serial dilutions of tuberculin is as follows: Koch's Old Tuberculin is used, and, as a diluent, 0.5 c.c. of pure phenol (carbolic acid) in enough normal salt solution to make 100 c.c. One c.c. of the Old Tuberculin is diluted with 9 c.c. of the diluent; this dilution is called No. 0. One c.c. of Dilution 0 is diluted with 9 c.c. of the diluent, and the result is No. 1. The series is continued to Dilution 5. The amounts of Old Tuberculin contained in 1 c.c. of the various dilutions are as follows:

Dilution No.	Old Tuberculin		
	C.c.	Mg.	Grains
0	0.1	...	1 1/2
1	0.01	...	1/6
2	0.001	...	1/60
3	0.0001	0.1	1/600
4	0.00001	0.01	1/6000
5	0.000001	0.001	1/60000

The initial diagnostic or probationary dose should be 0.05 c.c. (0.5 mg. or 1/120 grain of O. T.), 0.1 c.c., or 0.2 c.c. of No. 1. The initial therapeutic dose should be 0.1 or 0.05 c.c. of No. 5; that is, 0.0001 mg. (1/600,000 grain) or 0.00005 mg. (1/1200000 grain) of Old Tuberculin.

CASE 1 (T. B. Case 249).—Diagnosis, incipient pulmonary tuberculosis. First injection, June 17, 1908. Weight 135 pounds. Last injection Jan. 25, 1911; highest weight reached during the treatment was 161, a gain of 26 pounds. Number of injections given in two and one-half years, 105. Maximal dose given No. O, 0.3=3/100 c.c. of pure tuberculin. This may be considered a very large dose. This patient is tolerant to such large dosage but it is not necessary to maintain such quantities in order to uphold the tuberculin immunity. Smaller doses are now given once in four or six weeks. This patient is quite well and performs hard manual labor.

CASE 2 (T. B. Case 268).—Diagnosis, incipient pulmonary tuberculosis. First injection, July 15, 1908; weight 145½ pounds. Last injection, Jan. 8, 1911, present weight 167. Number of injections given, 68. Maximal dose No. 1, 0.6=6 milligrams. Under observation and treatment eighteen months, gain in weight 21½ pounds. This patient has followed his vocation throughout the treatment, is always of good cheer, and is an ideal hopeful patient.

CASE 3 (T. B. Case 97).—Diagnosis, far-advanced pulmonary tuberculosis. Received the first injection Feb. 29, 1908; weight 97½ pounds. Last injection Dec. 12, 1908; weight 102¼ pounds, a gain of 5¾ pounds. During the time, a little over nine months, this patient received 39 subdermal treatments. Maximal dose No. 4, 0.7=7 millimilligram. This patient, unlike the last, was much depressed and discouraged throughout the treatment. A disseminated miliary tuberculosis ended his life about a year ago.

CASE 4 (T. B. Case 115).—Incipient; first injection March 14, 1908; weight 126 pounds. Last injection June 22, 1910, weight 146½ pounds. Number of treatments received, 57. Maximal dose given No. 2, 0.7. Patient under observation fifteen months; gained in weight 20½ pounds.

CASES 5 AND 6 (T. B. Cases 489 and 495).—These are somewhat similar. Both patients work every day, full time. Patient 6 (Case 495) works ten hours daily at hard work teaming, while Patient 5 (Case 489) works also full time at tailoring. The latter, who has chronic pulmonary tuberculosis, probably of many years standing, not active, received his first injection Jan. 2, 1909; weight 120 pounds. Last injection Jan. 22, 1911; weight 118½ pounds. During a period of a little over two years the patient received in all eighty-two injections, maximal dose given No. 0, 0.4=4/100 c.c. of tuberculin. Although at the time when the last injection was given his history chart would show a loss of 1½ pounds, still the history shows that at one time during the treatment he had gained 8½ pounds in body weight. Patient 6 (Case 495) moderately advanced, first injection Jan. 9, 1909; weight 145¾ pounds. Last injection Jan. 11, 1911; weight 145 pounds; maximal dose No. 2, 0.7. Received in two years fifty-one injections. This patient also showed a loss at the last weighing, ¾ pounds, and yet at one time during the treatment he registered 153 pounds, a gain of 7¼ pounds.

CASE 7 (T. B. Case 528).—Moderately advanced. First injection Feb. 10, 1909; weight 78½ pounds. Last injection Dec. 31, 1910; weight 96 pounds. Total number of injections given 66. Maximal dose No. 0, 0.1. Tuberculin treatment continued for twenty-two months; a gain in weight of 17½ pounds.

CASE 8 (T. B. Case 876).—Advanced pulmonary tuberculosis with laryngeal involvement, but not active at the time of beginning treatment. First injection Sept. 25, 1909; last, Jan. 29, 1910. Seventeen injections. Maximal dose No. 4, 0.6. Subdermal medication was given for four months and no improvement in the patient's condition being noted, the tuberculin treatment was discontinued and after an interval of several months he was given for a time, in progressively increasing doses, a subdermal medication of a nuclein solution. No improvement whatsoever followed this medication.

CASE 9 (T. B. Case 979).—The patient is an adult suffering from glandular tuberculosis. Many old cervical scars as well as glands are demonstrable. This patient is doing remarkably well. First injection, Nov. 17, 1909; weight 153 pounds. Last injection Jan. 25, 1911. Present weight 165½ pounds. Received in all, 47 injections. Maximal dose, No. 2, 0.9; a gain of 12½ pounds.

CASE 10 (T. B. Case 1522).—Incipient pulmonary tuberculosis. First injection Sept. 7, 1910; weight 120 pounds. Last injection Jan. 25, 1911; weight 128 pounds. Patient given seventeen injections in four months, gain in weight 8 pounds. Maximal dose No. 4, 0.6.

CASE 11 (801).—Moderately advanced. First injection Sept. 18, 1909. Weight 114 pounds. Last injection June 29, 1910. Weight 121 pounds. Patient received a total of twenty-seven injections in nine months and gained 7 pounds in weight. Maximal dose No. 4, 0.5.

Patients 10 and 11 both showed a gain in weight at the time that the last treatment was given, Patient 10, as stated above, showing a gain of 8 pounds and Patient 11 an increase of 7 pounds. During the time that the treatment was given Patient 10 at one point reached a gain in weight of 12½ pounds and Patient 11 gained as high as 16¼. It must be remembered that the gain in weight in the tuberculous is not a constant one, is subject to great fluctuations even under the same continued hygienic, dietetic and rest conditions. The tuber-

culous patient is greatly influenced by the seasons, and under the most favorable conditions there is usually a decrease in body weight in the early spring and summer months with a corresponding increase toward the fall and winter.

AMBULATORY VERSUS SANATORIUM TREATMENT

The use of tuberculin in the treatment of pulmonary tuberculosis in suitable cases finds its greatest exponents in a well-equipped tuberculosis sanatorium. There, cases can be closely observed; studied, results accurately tabulated, the effect of a regulated administration of tuberculin carefully noted, and from such histories much valuable information and proper deductions may be gathered. Not so in the treatment of ambulatory tuberculous patients. The treatment cannot be given with any such degree of regularity as with the strict rules enforced at a sanatorium. Ambulatory patients do not always present themselves at the stipulated hour or day to receive the next regular treatment, as case histories only too well show. In a few isolated cases only is there any semblance of a systematic medication and yet with all these provisoes the results here given will show that the use of tuberculin is productive of good results, even if the treatment is somewhat irregular and not properly systematized. Therefore, I recommend, as I have stated before, that in all cases of pulmonary tuberculosis, carefully selected and suitable, the subdermal tuberculin medication should be given in correlation and connection with all the other approved methods of treatment.

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TREATMENT OF PURULENT OPHTHALMIA AND SIMPLE MEANS FOR ITS PREVENTION IN INFANTS *

MARK D. STEVENSON, M.D.
AKRON, O.

Any pus-producing organism or combination of such organisms may cause purulent ophthalmia, although the gonococcus of Neisser is responsible for a very large percentage, especially of the worst cases. Contrary to generally expressed opinion, I do not believe that the gonococcus or other pathogenic germs, unless extremely virulent, can quickly and successfully attack or destroy normal corneal epithelium. Intact healthy epithelium everywhere in the body, over skin or mucous membrane, presents the most effectual barrier against infection.

A corneal ulcer, the chief danger in these cases, is due either to the extreme virulence of the infection; poor nourishment of the cornea resulting from pressure strangulation, produced by local pressure of the swollen surrounding parts interfering with blood, lymph and nerve function; to direct pressure, a form of traumatism, by the undrained retained and, therefore, more injurious discharges; or to ordinary injuries and abrasions of the corneal epithelium. The two last-mentioned causes, and, to nearly as great a degree, the second, may be forestalled if free drainage is secured without causing any possible injury to the cornea. Therefore, the policy of treatment should be guided by four considerations—the careful, but thorough, use of antiseptics which are of sufficient strength to destroy or inhibit the growth of the infectious bacteria, but which are not too irritating to the local tissues; watchful care over corneal and general nutrition; free drainage; and, especially, avoidance of even the slightest injuries to the delicate corneal epithelium.

ANTISEPTIC RECOMMENDED

A bacteriologic examination of the discharge should be made as early as possible, which will be of much service in determining the treatment. In my practice 1 per cent. silver nitrate solution is usually employed, but in virulent gonorrheal inflammations 2 per cent., and, sometimes, depending on the severity, much stronger solutions may be better for a few treatments. In certain mild non-gonorrheal cases 0.5 per cent. is usually efficient. If the Klebs-Löffler bacillus is found, antitoxin should be administered. If the diplobacillus is present, weak solutions of zinc sulphate should be instilled frequently. The organic silver salts have been much extolled, especially protargol and argyrol (Cheney[1]), but the frequent and lavish use of solutions of these drugs, together with systematic cleansing, requiring separation of the lid margins and, therefore, preventing them gumming together, seems to me to explain the results that have been obtained by the employment of these feeble antiseptics (Graefe-Saemisch,[2] Marshall and Neave,[3] Derby[4]). Since the eyelids are so tightly applied to the eyeball the slightly heavier specific gravity of these solutions than of the tears is undoubtedly of slight importance in spreading them. Argyrol solutions do not compare with those of silver nitrate in antiseptic properties and cannot be used clinically with as nice discernment as to strength required. The appearance in all treatments is the same because of the constant dark color of all strengths of argyrol solutions. It is easy to observe the different effects of 0.5, 1 or 2 per cent. silver nitrate solutions, and if employed with caution, and the resulting albuminous precipitate is carefully washed away by a small quantity of any unirritating solution, the antiseptic effect is sufficient without injuring the tissues. Schneider[5] asserts that results do not depend so much on the antiseptic property of the drug used as on its power to stimulate the production of a bactericidal substance, leukin. My experience with other antiseptics recommended, e. g., mercury, has been too limited to report.

It is not enough merely to drop the silver solution between the lids, or to apply it to a part of the surfaces of the everted upper lids, which have been the methods ordinarily used, as by these methods the solution does not come in contact with the organisms in the lower and especially in the upper portions of the eyesac. The lids should be separated and elevated away from the eye-ball, so that a lake of silver solution may lie for one-half minute or longer between them, coming in contact with every portion of the conjunctival sac.

PHYSICIAN'S DAILY TREATMENT

Once each day the physician treats the eyes, holding the child's head between his rubber- or oilcloth-covered knees, the child being wrapped in a sheet fastened by a safety-pin and held by a nurse sitting on a chair opposite. The physician should separate the lids with proper lid retractors, being careful not to touch the cornea. The lids should not only be separated, but they should be pulled away from the eye-ball. Solid lid retractors should not be used, as they are likely to prevent the solution

* Read in the Section on Ophthalmology of the American Medical Association at the Sixty-Second Annual Session, held at Los Angeles, June, 1911.

1. Cheney: Boston Med. and Surg. Jour., clx, No. 9, p. 269.
2. Graefe-Saemisch: Handbook of Ophthalmology, Enc. 8, part 1, p. 261.
3. Marshall and Neave: Brit. Med. Jour., Aug. 18, 1906.
4. Derby: Boston Med. and Surg. Jour., clv, No. 13, p. 342.
5. Schneider: Arch f. Ophth. (v. Graefe's), lxxiii, part 2.

reaching underlying parts of the conjunctiva. The wire lid retractors on the market do not pass far enough under the upper lid. I had longer models made, but they are more difficult to manipulate than tenotomy hooks with smooth rounded bulbar ends. The latter are more readily introduced and more easily moved from side to side. Smooth, blunt-ended probes, properly bent, will serve. The retractor employed for the upper lid should pull it well away from the eye-ball, and be long enough, about one-half inch, to reach to the upper limit of the eyesac. I employ a large tenotomy hook like Green's for the Smith-Indian cataract operation. A smaller one will do for the lower. The hook should form a slightly acute angle with the handle, as otherwise the lid readily slips from its hold. It should be well nickeled and before using should be carefully cleaned with gauze so that no foreign matter will be wiped on the inner surfaces of the lids.

The physician must be careful in using the lid retractors that they do not touch the cornea. The retractor for the upper lid should be used first, placing it under the lid, the margin of which has been pulled slightly away from the eye-ball; the nurse then pulls the lower lid downward with the finger, everting it sufficiently so that the other retractor may be readily introduced under it. Into the sac pulled open by the retractors held by the physician, the nurse, properly instructed, gently pours several drops of the chosen strength of silver nitrate solution, flooding the whole sac, including its upper and lower limits. The retractors should be moved from side to side in the same direction in order that the solution used may get into every portion of the upper and lower parts of the eyesac. After the silver solution has flooded the sac for one-half to one minute, the nurse is directed to wash it away with normal saline, saturated boric acid solution or sterile water. Care should be exercised so that no gritty, undissolved salt may get into the eyesac, as it might injure the corneal epithelium. For the same reason care should be used not to drop solutions on the cornea, especially from a considerable height, but it should be on the adjoining conjunctiva of the lids or eye-ball, preferably on the side toward the nose. The child's face should be tilted toward the side being treated, so that the solution will not run over the nose into the other eyesac. If both eyes are infected the better eye should be treated first.

After the lid retractors are removed good drainage may be secured by preventing gumming of the lid margins, which may be done by dropping on them one or two drops of liquid petrolatum, or by applying sterile petrolatum, or other simple, non-gritty ointment to the margin of one or both lids. When the lids are separated, especially if the infant attempts to squeeze them together as in crying, the margins of the lids are usually everted so that the vaselin may be applied to one or both lid margins without any danger of injuring the eye-ball. It can be applied by means of cotton tightly wrapped on a sterile toothpick.

CARE BETWEEN THE PHYSICIAN'S TREATMENTS

The care of the eyes between the physician's treatments consists in maintaining free drainage by smearing the margin of either or both everted lids as often as necessary with some simple, non-gritty ointment, e. g., sterile petrolatum, zinc oxid or 2 per cent. calomel ointment. The same result may be more safely secured by dropping on the margins of the lids liquid petrolatum, solutions of argyrol or even olive oil. I much prefer the liquid petrolatum or similar product to olive oil.

This prevents the lid margins gumming together. No accumulation behind the lids should be permitted. They should be gently separated as often as necessary to relieve the discharge. To be certain of good drainage the nurse or attendant should separate the lids every hour or two, making sure that they are not gummed together, and whenever there is a tendency to gumming drop in the oil or argyrol solution or reapply the ointment. If the ointment is chosen, the nurse or attendant should be instructed to use it carefully so as not to touch or rub the cornea, causing a corneal abrasion with probable subsequent ulceration. Pus that has escaped from the eyesac no longer endangers the eye, but may be wiped from the outer surfaces of the lids by moist cotton or gauze; however, no attempt should be made to wipe or wash it from the eyesac. Such unnecessary attempts at drainage are likely, even in skilled hands, to cause abrasions of the cornea, defeating the chief purpose of treatment. I formerly advocated[6] unnecessarily frequent cleansing and irrigations with various non-irritating solutions, exhausting to both nurse and patient, losing sight of the fact that such frequent treatments subject the eyes to great risk of dangerous traumatisms, especially at night, or with poor illumination, or when the attendants are tired or exhausted.

TREATMENT IN ADULTS

Treatment in adults is similar to that in infants, except that three or four drops of 1 per cent. holocain or 4 per cent. novocain solution are instilled at minute intervals before giving the daily treatment with silver nitrate solution. Cold applications for a short time after the daily use of the silver nitrate solution are soothing and not as dangerous as in infants. If there is much spasm of the lids an antispasmodic, such as morphin, belladonna or bromids, should be administered. Gonococcus vaccine often proves very beneficial in metastatic gonorrheal conjunctivitis due either to endogenous infection or to the presence of toxins, especially where the original infection is of long standing.

In ordinary purulent ophthalmia of adults good results may usually be expected, if once each day every part of the eyesac is flooded with a proper silver nitrate solution, if the lid margins are separated at regular intervals and prevented from gumming together by occasionally dropping on them liquid petrolatum or 25 per cent. argyrol solutions, or by applying petrolatum or other lubricants, and, most important of all, if great care is exercised that nothing be done, such as frequent washing or douching of the eyesac, to injure the delicate epithelium of the cornea, which almost surely will give rise to an ulcer.

Other questions that may arise in treating these often difficult cases in both infants and adults, such as the need of canthotomy or scarification and the after-care of these cases by simple astringents, optical iridectomies, etc., have been sufficiently considered by other writers.

Contrary to my former policy of treatment, I now wish to insist that sufficient drainage may be secured by preventing gumming of the lid margins and by their regular separation; further, that frequent irrigations of the eyesac are not only unnecessary, but positively dangerous, since slight corneal traumatisms and, therefore, ulcers are more likely to result. Frequent irrigations, in order to be safe, must be done faithfully and carefully, in a hospital, by trained nurses, conditions not always obtainable under ordinary circumstances for out-patients or when mother and child should not be separated. Al-

6. Stevenson: Lancet-Clinic, Nov. 30, 1907.

though it may be urged that the use of proper hooks, not possessed by all physicians, is dangerous in untrained hands, by the experienced quicker results are more safely secured than by any other method. In untrained hands any method is dangerous, but when hooks are not to be had or their use feared, the daily instillation of the silver solution, the lids being drawn widely apart and moved in such a way that the solution will be distributed as far beneath them as possible, maintenance of free drainage, and avoidance of dangerous washing and irrigating, will nearly always secure good results, although not as promptly as when the hooks are used.

PROPHYLAXIS IN INFANTS

On the completion of labor the child's eyes should always receive consideration and attention, as a large proportion of cases of ophthalmia neonatorum—Nance[7] claims two-thirds—are not due to the gonococcus, but to other pathogenic organisms likely to be occasionally present in any woman's vaginal discharges. When the mother has leukorrhea, especially gonorrhea, as easily determined by the microscope as a chemical examination of the urine can be made, considering not only the great danger of the child becoming partially or totally blind, but also the various metastatic conditions (McKee,[8] Stieren,[9] Bull[10]) possible and the increased infant mortality, it is certainly a sanitary crime not to use preventive measures. Pregnant women should be instructed to perform daily external cleansing with soap and water and a clean wash cloth, and if irritating or profuse white discharge is present to consult their physicians.

Method.—After labor is completed and the child removed from the mother, with clean hands and gauze, preferably dry absorbent, the child's face around the eyes and nose should first be wiped clean, wiping in a direction away from the nose. Its eyelids, which should not be opened during this process, should likewise be carefully cleaned. (This does not sterilize the part of the face around the eyes, which is practically impossible, especially with any unirritating safe strength of antiseptic solution.) Next, the lids should be separated and, if there is no pus in the eyesac from an already established inflammation requiring treatment, one or two drops of 1 per cent. silver nitrate solution should be dropped between the outer ends of the lids. This amount and strength of silver nitrate does not require special neutralization so that instillation of salt solutions is not necessary. Washing or cleaning the eyes with any solution, before or after using the silver, is not recommended, as it is likely to injure the epithelium on the cornea and may wash infectious material from the partially cleaned face into the eye or from one eye into the other. The slightest injury to the cornea, easily avoided, may be followed by corneal ulcer and loss of vision or eye-ball. The lips and nose should be wiped free of mucus and the little finger, wrapped with a piece of gauze, should be passed into the child's mouth and any accumulated mucus removed by an outward sweep of the finger. To help prevent subsequent infections from the nose I advise dropping one drop, not more, of 1 per cent. silver nitrate solution into each nostril. The general toilet of the face and body may then receive attention. If there is considerable swelling or reaction after the use of the silver solution, light cloths wrung out of cold water may be applied for fifteen minutes or one-half hour, but are not often necessary. Harmless bleeding occurs rarely and usually is probably due to unnecessary roughness in separating the lids. If there is delay in labor after delivery of the head, some authorities advise immediate attention to the infant's eyes before delivering the body. Very rarely this might be advisable, especially if the eyelids become separated, but usually would not be good practice, as the accoucheur's and nurse's hands are not properly prepared to treat the eyes and might only infect them. The eyes would also be exposed to subsequent infections during labor.

7. Nance: Illinois Med. Jour., October, 1908.
8. McKee: Ophthalmology, July, 1909.
9. Stieren: Ophth. Rec., July, 1909.
10. Bull. New York Med. Jour., May 15, 1909.

AFTER-CARE

After-Care.—In subsequently cleaning the child's eyelids and around the face and eyes, the nurse or attendant should be instructed to destroy all wipes and not to use any cloths or solutions dirtied with the mother's discharges or that had been used in previously cleaning any part of the child. They should always be instructed to inform the physician—and are compelled to do so under penalty of the law in many states—of any marked or continued discharge from or redness of the infant's eyes, especially if the lids become swollen or gummed together. Although by the use of prophylactic measures the severe and dangerous ophthalmias are almost entirely prevented, it should be understood that, for the first day or two, slight discharge and redness, due to the irritation of the solutions used, are not uncommon, occurring approximately in 10 per cent. of the cases. This silver irritation quickly disappears, requiring only cleanliness and prevention of the lids gumming together. A few cold applications may be helpful. Repeated instillations of silver salts are not only unnecessary, but likely to prove harmful.

The eyelids are nearly always closed during labor, so that on opening the lids whatever germs gain entrance into the eyesac are probably from the eyelashes or on or near the margin of the lids. Therefore, a drop or two of the silver solution placed in the outer portion of the eyesac, and swept across the eye by the closing of the lids, nearly always reaches all the germs present. It is quite different after inflammation is established and the germs have gained entrance, not only into the upper and lower folds of the sac, but into the recesses of the glands. It is not only necessary that prophylactic measures be used and properly used with attention to detail, but that continual care be exercised that the eyes do not become infected later.

IMPORTANCE OF OPHTHALMIA NEONATORUM

The number of persons totally blind throughout life from this preventable disease, according to Keller,[11] 25.21 per cent. of those who enter our blind institutions, and fully one-tenth of the blindness in any country, is only a partial index of its evil results. Account must also be taken of the high mortality among these unfortunates, of the disfigured and disabled eyes of a far greater number of others, perhaps totally blind in one eye, scarred on one or both—with defective vision—and, therefore, lessened earning power.

It is estimated that the total annual loss from this disease in the United States is $7,000,000, and that an amount of more than $1,000,000 annually is spent in partially caring for its victims. The community is said to pay an excess of $4,500 during the school life of a blind child. In this and other civilized countries millions are spent yearly to safeguard the public against a

11. Keller: Lancet-Clinic, Feb 27, 1909.

few criminals, but even paltry sums are reluctantly spent in preventing diseases and hygienic evils which are responsible for much more misery, sickness and even death, and which impair the usefulness of many helpless citizens. The property rights of an infant or minor are protected by the state. Parents or guardians are not permitted to abuse him, and for the protection and good of the state he is compelled to go to school and is not permitted to do injurious work while of school age. The infant is entitled to protection against preventable blindness and the state ultimately may find it necessary to help stamp out this pestilence, just as it passes other sanitary measures.

In 1906 a committee of the American Medical Association was appointed, with Dr. F. Park Lewis as chairman, to determine ways and means of securing the more general adoption, where necessary, of well known methods of eliminating this disease. In every state the active cooperation of the medical profession, public health authorities and other agencies is being sought. A national movement has been inaugurated to secure the passage and enforcement of proper laws dealing with these cases in this country, as has been done by most of the European powers; also to bring about a more general, if not universal, adoption of simple prophylactic measures. This has come about through a recognition of the importance of this disease, not only to the individual blinded at birth, before being trained and educated, but also to the state.

ADVISABILITY OF ROUTINE USE OF PROPHYLACTIC

In this earnest crusade for the more general use of a prophylactic, it is undoubtedly good policy to insist on its routine use in public lying-in wards or hospitals, where these infections are so common, and by midwives who, with their limited knowledge, cannot be expected to form correct judgments. The capable physician in private practice, however, well acquainted with his patient, is likely to insist on his right to determine in each case, a prerogative of his profession, whether the use of a prophylactic is necessary or not. If a vaginal discharge is present, time will often permit a bacteriologic examination to be made which will determine the variety of pathogenic organisms present, any of which may cause ophthalmia neonatorum. The presence of the gonococcus demands prophylactic measures. In cases, however, in which a discharge is present it is easier to employ a prophylactic than to make a bacteriologic examination. If properly and carefully used, it will very rarely cause more than a little temporary redness and discharge, although the advisability of its universal use is still debatable. It is going too far, is unjust and unfair, to say that if infection occurs or even blindness results that it is always due to the neglect and carelessness of physician, midwife or nurse, for the child's eyes may become infected after the proper use of a prophylactic, as from the nose through the nasal duct, from subsequent introduction of infection, or may have been infected sometime before birth, which Stephenson[12] claims is not infrequent (Lewis, Harper and Pease,[13] Nance[7]). However, these professions must bear a large part of the blame for the continued frequency of this nearly always preventable disease.

While the knowledge that a large proportion of blindness from ophthalmia neonatorum is due to gonorrhea in one or both parents, and placing the real responsibility of the child's blindness on them, will be a moral lesson to the public, the fact remains that it is not all due to this cause. The general understanding and belief that infection may occur in any case, gonorrheal as well as non-gonorrheal, will permit of the freer use of a prophylactic without any danger of giving offense by its use. In addition, discussion and dissemination of knowledge concerning ophthalmia neonatorum, over which a mock modesty is otherwise too likely to draw a veil, will thereby be furthered. Morrow says, "Social tradition holds that it is a greater violation of conventional propriety publicly to mention this infection (gonorrhea) than privately to contract it and carry it home to the family." Unfortunately at the present time this is the best reason why, in the movement for the prevention of blindness, too much emphasis should not be placed on its most common cause. A freer discussion of this commonly, but not necessarily, gonorrheal disease will serve as an entering wedge toward a more general discussion and understanding of sex problems.

Physicians will no doubt be surprised to learn that a social service study of 116 cases of ophthalmia neonatorum cared for in the wards of the Massachusetts Eye and Ear Infirmary, October, 1908-1909, showed that only two of the patients had been attended by midwives, and that only temporarily until their physician could be secured, and that physicians had attended all the other cases throughout. As Edgar[14] has said, "The burden of the blame cannot all be placed on the midwife."

At present, however, the necessary midwife, who in poor families serves not only as accoucheur, but often takes the place of nurse and housekeeper, and who attends about one-half the obstetric cases in our large cities, presents a serious problem for solution. Recommendations in regard to her are freely made, requiring better training, prompt notification of births, compulsory use of prophylactic solutions, early reports, on birth certificates, of the use of such solutions, and immediate reports of cases of ophthalmia, with punishment for repeated neglect by fines or withdrawal of license to practice by registration authorities. The medical profession in this day ot many false gods must be careful, however, not to encourage unduly too many legislative activities, especially by making them, at least apparently, necessary. Statutes compelling physicians to use certain rule-of-thumb remedies as a routine for certain conditions will never be advisable nor practical. The beginning of such a course by the public, with its attendant penalties on the profession, may be fraught with grave dangers both to the public and to our profession. The proper use of a good prophylactic by a well-trained physician is a safeguard, but, the statute-forced, perfunctory, careless or improper employment of any solution of silver that happens to be convenient, by any one, physician or midwife, who is not clean and properly trained, is mere interference, and is likely to result in more blindness in the aggregate than if not used at all. The campaign against ophthalmia neonatorum will be truly successful in proportion as it remains one of enlightenment and education.

Human error is sure to become manifest in the zeal and enthusiasm attending any great or useful reform or propaganda and great care must be exercised that the habitual reformer or yellow journalist does not harm innocent persons or jeopardize this movement by his too frequent indulgence in misrepresentation or exaggeration. Physicians should not permit such mistakes to

12. Stephenson: The Hospital, March 12, 1910.
13. Lewis, Harper and Pease: Ophthalmia Neonatorum and Its Prevention, THE JOURNAL A. M. A., March 13, 1909, p. 876.
14. Edgar: New York Med. Jour, May 15, 1909.

prejudice them against a good movement, but should do their part properly to further it.

VALUE OF PROPHYLAXIS

The prevention of blindness from this cause is too important to demand argument, too successful to require debate, too necessary to need exaggeration or overstatement. The value of prophylaxis in these cases, one of the greatest triumphs of modern scientific, preventive medicine, has been so clearly proved by carefully computed statistics of incontestable accuracy, often published, secured by responsible medical authorities in many civilized countries, that members of the profession can ill afford to assume an attitude of indifference or presume to question the usefulness of a prophylactic (Gehrung[15]). The solution is easily employed and can be readily secured, is freely distributed by many state health boards, and conscientious physicians should always have fresh, clear solutions in their obstetric bags. The objections to frequent use of prophylactic measures, slight pain and mild silver conjunctivitis in many children who would not be likely to have ophthalmia neonatorum, are not comparable in importance to the almost never-failing success in preventing this no longer necessarily venereal or shame disease. The great lying-in hospitals in which cases of ophthalmia neonatorum and its results were formerly so conspicuous, very rarely have any such cases since the routine use of some good method of prophylaxis. That some physicians of large experience have not had any cases of severe ophthalmia neonatorum is their good fortune, but only begets a false sense of security for the future. It is not a parallel argument to say that because some people die of appendicitis, therefore, every appendix should be removed. Such a course would be attended with risks out of proportion to the results to be obtained. The prophylactic properly used is practically never dangerous. It is not true that a drop placed in the eye after inflammation has once begun is the same as one used soon after birth. In the latter case, unless inflammation is already established, there are probably only a few germs along the margins of the lids; in the former they are distributed throughout the conjunctival sac in its folds and recesses and will therefore require severe treatment to destroy them. It is difficult to understand the indifference of many physicians to this important subject, about which so much is being written, for many such physicians are men who frankly condemn and recommend prosecution of quacks, Christian Scientists, etc., for their malpractice and vagaries. The time is nearly here when the accoucheur and nurse will be subjected to severe criticism and reproach, whether deserved or not, and considered culpably negligent and censurable in every case in which ophthalmia neonatorum develops, especially if measures for its prevention have been neglected, as nurse and physician are now blamed if proper aseptic precautions for the protection of the mother against infection are not observed.

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[THE DISCUSSION ON THIS PAPER WILL BE FOUND ON A LATER PAGE OF THIS ISSUE UNDER THE HEADING OF "SECTION DISCUSSIONS."]

Criminals and Defectives.—When a criminal is referred to as "defective," a misconception is liable to be created, as the general impression made by the word is that of physical deformity. Yet, he is strictly speaking within the meaning of the word, for he is incompetent.—Jour. Crim. Law and Criminology.

15. Gehrung: New York State Jour. Med., ix, No. 5, p. 205.

THE SIGNIFICANCE OF RETINAL HEMORRHAGE

BASED ON A STUDY OF THE SUBSEQUENT HISTORY OF ONE HUNDRED AND EIGHTY-SEVEN CASES *

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PROVIDENCE, R. I.

The various types of retinitis seen during a practice of more than a score of years have emphasized the fact that the therapeutic measures at our command in this condition are practically valueless. If recovery occurs, it must be ascribed to the recuperative powers of Nature, rather than to any effort of our own. Except in the albuminuric type, the prognostic significance of the disease has not been sufficiently appreciated to warrant the text-books in succinctly stating the fact, or to influence us in caring for the future welfare of the patient rather than devoting our entire energies to the relief of the existing condition.

It was to ascertain whether other than the albuminuric forms of retinitis were as significant of grave termination that I have made a study of 187 cases of retinitis occurring in private practice since 1890. The much larger number seen in my hospital service has been omitted because of my inability to trace the subsequent history of the patients. Specific retinitis has been omitted because of its nature, and because of the fact that it is usually much more amenable to treatment than the non-syphilitic types.

It has been my practice to diagnose my cases under one of six heads:

1. Retinal apoplexy, due to,
   (a) A rupture of the walls of a vessel;
   (b) Diapedesis.
2. Simple retinitis, secondary to retinal apoplexy.
3. Hemorrhagic retinitis with secondary hemorrhages.
4. Albuminuric retinitis.
5. Diabetic retinitis.
6. Chorioretinitis.

While the classification may be deemed imperfect, it serves to eliminate the forms of retinitis which are not associated with hemorrhages and affords the information desired for the present inquiry.

Text-books on ophthalmology, with few exceptions, pass the subject of prognosis with the statement that "retinal apoplexy and hemorrhagic retinitis are of grave import," "a forerunner of cerebral apoplexy," or "an indication of grave vascular or cardiac lesions," while they are united in the opinion that albuminuric retinitis is fatal within a short time in 70 per cent. of cases. This part of the subject has been ably discussed by various authors, and the statistics of the cases of albuminuric retinitis are offered merely as corroborative evidence of the gravity of the condition, yet the statement of Porter that "all cases of albuminuric retinitis are found in syphilitics," is so abundantly disproved by my own cases that I cannot forbear to call attention to them. The comparatively few diseases which are ascribed as the cause of death in my fatal cases emphasize our present knowledge of the etiology of hemorrhagic retinitis, which may be briefly summed up as follows:

1. Atheroma.
2. Vasculitis and perivasculitis.
3. Increased arterial or venous pressure.

* Read in the Section on Ophthalmology of the American Medical Association, at the Sixty-Second Annual Session, held at Los Angeles, June, 1911.

4. Altered condition of the blood found in nephritis, glycosuria, oxaluria or profound toxemia.
5. Traumatism.
6. Reflex disturbances.

All the deaths which have occurred may be ascribed to one of these six causes.

I have records of 240 cases of retinitis, and of these I have been able to trace the subsequent histories of 187. I am unable to account for fifty-three. Seventy-four are living and 113 are dead.

TABLE 1.—SHOWING OUTCOME IN 187 CASES OF VARIOUS TYPES OF RETINITIS

Type of Disease	No. of Patients	Living	Dead	Per cent. Dead
Retinal apoplexy	22	17	5	22.7
Hem. retinitis	47	21	26	55.3
Alb. retinitis	101	26	75	74.2
Diab. retinitis	10	5	5	50.0
Chorioretinitis	7	5	2	28.6
	187	74	113	60.4

So far as may be judged by such a small number of cases, 60 per cent. of all cases of non-syphilitic hemorrhagic retinitis terminate fatally within a few years; while of the hemorrhagic type a much larger number (55.3 per cent.) than is generally believed, are rapidly fatal. Any disease in which more than half of the patients die within a short time is worthy of careful study.

We may gain valuable information by a consideration of the state of health of those now living, and in all cases of which I have not personal knowledge I have gained my information from the family physician.

Of the seventy-four living patients thirty-four, or 46 per cent., are in confessedly poor health, and the similarity between the specific diseases from which they suffer and the causes of death shown in Table 3 warrants the assumption that the mortality there shown will in a short time be increased.

I desire also to call attention to the fact that it is hemorrhagic retinitis which yields the larger percentage of the cases of poor health.

TABLE 2.—STATE OF HEALTH OF LIVING PATIENTS

	Period of Observation						Diseases									
	One Year.	Two Years.	Three Years.	Five to Ten Years.	Over Ten Years.	Total.	Usual Health.	Poor Health.	Blind.	Hemiplegia.	Paralysis Agitans.	Epilepsy.	Mental Disease.	Arterio-sclerosis.	Rheumatism.	Total.
Ret. apoplexy	6	4	..	1	6	17	10	..	1	4	..	..	..	..	2	..
Hem. retinitis	3	5	1	12	..	21	11	1	3	..	1	2	2	1	..	..
Alb. retinitis	7	9	2	6	2	26	14	9	3	..	..	..	..	..	..	..
Diab. retinitis	2	..	1	..	2	5	..	3	1	1	..	..	..	..	..	..
Chorioretinitis	.	2	..	1	2	5	5	..	..	..	..	..	..	..	..	..
	18	20	4	20	12	74	40	13	8	5	1	2	2	1	2—	74

TABLE 3.—CAUSES OF DEATH

	Nephritis.	Cerebral Tumor.	Apoplexy.	Diabetes.	Arterio-sclerosis.	Pulmonary Tuberculosis	Suicide.	General Paresis.	Cardiac Disease.	Rheumatism.	Diphtheria.	
Ret. apoplexy	..	..	3	..	1	..	..	..	1	..	..	5
Hem. retinitis	..	5	12	..	1	2	2	1	2	..	1	26
Alb. retinitis	75	..	..	..	..	..	..	..	..	..	..	75
Diab. retinitis	..	..	..	4	..	..	..	..	..	1	..	5
Chorioretinitis	..	..	2	..	..	..	..	..	..	..	..	2
	75	5	17	4	2	2	2	1	3	1	1	113

TABLE 4.—DURATION OF LIFE

Causes of Death	Died within 6 months.	Died 6 mos. to 1 year.	Died 1 to 2 years.	Died 3 to 10 years.	Died over 10 years.	Total.
Nephritis	38	15	10	10	2	75
Cerebral tumor	1	2	1	1	..	5
Apoplexy	2	7	1	7	..	17
Diabetes	2	..	2	..	..	4
Arteriosclerosis	..	..	..	2	..	2
Pulmonary tuberculosis	1	..	..	1	..	2
Suicide	..	1	..	1	..	2
General paresis	..	..	1	..	..	1
Cardiac disease	..	..	1	2	..	3
Rheumatism	..	..	..	1	..	1
Diphtheria	..	..	1	..	..	1
	44	25	17	25	2	113

TABLE 5.—AGES OF FATAL CASES OF NEPHRITIS

	No. of Cases	Average Duration of Life
Under twenty years	1	2 weeks
Twenty to thirty years	12	5 months
Thirty to forty years	11	8 months
Forty to fifty years	9	30 months
Fifty to sixty years	25	18 months
Sixty to seventy years	12	20 months
Seventy to eighty years	4	27 months
Over eighty years	1	2 months
	75	

TABLE 6.—DURATION OF LIFE IN FATAL CASES OF NEPHRITIS

One day, 1 case; 2 days, 1 case; 1 week, 1 case; 2 weeks, 3 cases; 1 month, 6 cases; total, 12, or 15 per cent., died within one month.

Two months, 5 cases; 3 months, 10 cases; 4 months, 7 cases; 5 months, 2 cases; 6 months, 3 cases; total, 39, or 52 per cent., died within six months.

Seven months, 1 case; 9 months, 3 cases; 10 months, 1 case; 11 months, 3 cases; 1 year, 7 cases; total, 54, or 72 per cent., died within one year.

Eighteen months, 2 cases; 19 months, 1 case; 20 months, 1 case; 24 months, 6 cases; total, 64, or 85 per cent., died within two years.

Three years, 5 cases; total, 69, or 92 per cent., died within three years.

Five years, 1 case; 6 years, 1 case; 8 years, 2 cases; 10 years, 1 case; 12 years, 1 case; total, 75.

TABLE 7.—DURATION OF LIFE IN ALL CASES

	Cases	Per Cent.
Living at end of ten years or more	74	40.9
Died in one year	70	37.4
Died in two years	17	9.0
Died in three years	4	2.1
Died in three to ten years	19	10.1
Died after ten years	3	0.5
	187	100.0

Chances of death in 1 year, 37.4 per cent.
Chances of death in 2 years, 46.4 per cent.
Chances of death in 3 years, 48.5 per cent.

If these statistics are correct (and I have taken great pains in their preparation, in which I have been greatly assisted by my associate, Dr. J. W. Leech), a study of their findings will reveal what I have endeavored to prove, i. e., that aside from the well-known, speedily fatal termination of albuminuric retinitis, not only simple

retinal apoplexy, but all the types of retinitis associated with hemorrhages are danger signals, and that our duty lies more in the safeguarding of the patient's future than in the treatment of the present ailment. It offers to life insurance examiners the possibility of forecasting the future of an applicant, and thus determining his value as a risk with more accuracy than by the ordinary methods of examination, and suggests the advisability of insisting on an ophthalmoscopic examination in every case. The comparatively small number of cases, of course, weakens our conclusions, but what is true of the whole is in a measure true of its parts, and further investigations by other observers will, I believe, corroborate these findings. Of the 187 patients 113 (60 per cent.) are dead and thirty-four are in poor health, and only forty (21.4 per cent.) are reported as in their usual health. Of those who suffered from retinal apoplexy 45 per cent. are in good health, while in the cases of hemorrhagic retinitis but 24 per cent. of the patients are not either dead or afflicted with some grave disorder. Thirteen per cent. only of the patients with albuminuric retinitis are alive and well, and of the diabetic type there is none.

CONCLUSIONS

1. Three-quarters of all cases of hemorrhagic retinitis either terminate fatally within a few years or the patients suffer marked impairment of health.

One patient died of diphtheria during an epidemic, but was suffering from Bright's disease, and her life would in any event have been of short duration. One died of rheumatism, four from diabetes, and of the two who died of tuberculosis, one certainly did not have that disease when seen, but she died suddenly while returning from Europe and the cause of death was given as tuberculosis.

With these exceptions, all deaths have been due to some disorder of the nervous or circulatory system, and all cases of impaired health are ascribed to the same conditions.

2. The existence of any form of hemorrhagic retinitis is suggestive of present or future disease of either the nervous or circulatory system.

By reference to Table 5, it will be noticed that the average duration of life in albuminuric retinitis increases regularly with the age of the patients. An apparent exception is found between the ages of forty and fifty, but this is due to the fact that the two patients who lived ten and twelve years, respectively, were between these ages. If these are eliminated, the average duration is twelve months. The largest number of cases occur between the ages of forty and fifty.

3. The duration of life in albuminuric retinitis increases with the age of the patient and the younger the patient, the worse the prognosis in point of time.

There have been nine cases of albuminuric retinitis occurring in pregnancy, and of these, two of the patients are dead of acute uremia; one two weeks after parturition at term, the other at four months. Of the seven patients living all are in excellent health; three have passed subsequent pregnancies without recurrence, five have vision of 0.9, or better, and in two there is impaired vision.

When, in the etiology of any disease, reflex disturbance is given as a cause, it is usually synonymous with lack of accurate knowledge. My warrant for ascribing hemorrhagic retinitis to such a cause is found in two cases which I desire to report in detail.

CASE 1. E. G., aged 36, a bank clerk, was first seen in 1898 with a myopia of one diopter, which, when corrected, gave him normal vision in each eye. January 28, 1903, he was again seen, and with the correcting glass his vision was 1.0 in each eye. February 2, while at the dentist's a drill perforated the root of a first bicuspid tooth on the right side of his jaw, and breaking, a portion was left in the tooth. Almost immediately there was a blurring of vision in the right eye, and on the following morning when I saw him there was an extensive retinal hemorrhage just above the macula, the vision being reduced to 2/50. The tooth was extracted and the broken tip of the drill was found protruding about ⅛ of an inch. The splash of hemorrhage was soon surrounded by an area of edema, and several spots of exudation appeared in the macular region, which rapidly increased till they presented the appearance of finger-like projections extending into the vitreous, which waved back and forth with the motion of the globe. In June, of that year, this exudate had disappeared, leaving dirty yellow spots, but the vision was not improved. I did not see him again until June, 1906, when to my surprise the vision was again normal. The retina had resumed its normal appearance, save that one of the ascending arteries was obliterated for about two diameters, and a collateral circulation had been established.

This patient was seen in consultation by Dr. Hasket Derby, of Boston, and he expressed his opinion that the retinitis was a reflex disturbance.

A pertinent fact in connection with this case was that an indemnity on an accident insurance policy was denied on the ground that it was not accidental.

CASE 2. In 1905, I saw Miss E. J., aged 40, who noticed on the day following a visit to the dentist that the vision of one eye was blurred. She had been having a nerve killed and had suffered a good deal of pain at the time, but did not ascribe her loss of vision to anything connected with her tooth. She presented numerous splashes of hemorrhage in the retina of the right eye, and with the memory of the first case in my mind, I spoke of the possibility of a similar condition. She immediately consulted her dentist, who assured her that there was no possibility of such an accident, but on the third day she insisted on having the tooth extracted, and, with the dentist, visited my office, bringing the offending molar. It showed no evidence of having been injured, but to make assurance more sure, I made a section of the tooth in the axis of the dental canal and found in it a broken piece of steel broach, a quarter of an inch long. The retinitis resulting subsided in about three months, leaving normal vision.

These two cases can hardly be ascribed to a coincidence.

The following case illustrates the point I desire to make.

CASE 3. A. B., aged 40, unmarried, was referred to me on account of severe headaches. There was no history of specific infection, the previous condition of health was excellent, and his physician, failing to find an adequate cause for the headaches, as usual ascribed it to the eyes. He had several spots of retinal hemorrhage evidently of recent occurrence, but no impairment of vision. He was referred to his home physician for a urinalysis and I did not again see him for several weeks, when he reappeared with greatly diminished vision and an active neuroretinitis of each eye. He said that no trouble had been found with his urine and that his physician had, in the absence of other symptoms, given him potassium iodid in 5-grain doses, which he had been taking since I first saw him. Evidently cerebral disturbance was present, and a letter was given him to deliver to his physician, stating my opinion that the trouble was due to a cerebral tumor and that the prognosis was bad. He died on the way home while on the train and the letter was taken from his pocket by the medical examiner called to the case.

If there had been an appreciation of the gravity of this case and more attention given to its possibilities, the fatal termination possibly could have been delayed.

I have endeavored to show by these statistics that all types of hemorrhagic retinitis are of serious import; that even retinal apoplexy is significant of impending danger, while simple retinitis with hemorrhage has a mortality largely in excess of that commonly ascribed to it. I have made no study of the pathology, and make no suggestion for treatment, except to urge that attention be given to the future of the patient and not to the present.

117 Broad Street.

[THE DISCUSSION ON THIS PAPER WILL BE FOUND ON A LATER PAGE OF THIS ISSUE UNDER THE HEADING OF "SECTION DISCUSSIONS."]

CULTIVATION OF PATHOGENIC TREPONEMA PALLIDUM *

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Although several investigators (Scherschewsky, Mühlens and Hoffmann) have secured cultures of certain spirochetes, no one has yet been able to establish them as being undoubted examples of *Treponema pallidum* (*Spirochæta pallida*). In some instances, the morphologic features of the organisms in the cultures were identical with those present in syphilitic lesions in man, yet they never caused lesions when inoculated into animals. In two exceptional instances, Bruckner and Galasesco, in 1910, and Sowade, in 1911, reported that they had succeeded in reproducing syphilitic lesions in the rabbit by the injection of "impure cultures." But as these "cultures" still contained the original syphilitic tissue used for inoculation, and as a second growth (generation) of the spirochetes could not be obtained, it remained an open question whether the lesions were due actually to the cultivated spirochetes or whether they were simply produced by the original spirochetes that had survived.

METHOD OF CULTIVATION

All previous investigators used human syphilitic tissues for the cultivations. I have employed only the spirochete-containing testicular tissue of the rabbit. As is well known, this tissue, at the height of the lesions, contains innumerable motile spirochetes. The rabbit material is available at all times and tends, when continuous passages have been effected, to contain relatively few common bacteria. Up to the present time, I have employed ten different strains of *Spirochæta pallida*, all of which have been passed through the rabbit. Of these, six strains have been passed through successive series of cultures.

The only suitable culture-medium which I have thus far found is serum-water (sheep, horse, rabbit) to which a piece of sterile rabbit tissue is added. I have preferred the kidney or testicle. The liver is less suitable, first, because it often contains bacteria, and, second, because of the large quantity of carbohydrate which in the presence of the common bacteria yields a large amount of acid. Test-tubes 20 cm. high and 1.5 cm. wide are chosen into which 16 c.c. of the serum-water are introduced. After sterilization at 100 C. for three successive days, a small piece of the freshly removed organ is added. The tubes, having been incubated at 37 C. for two days, are, if sterile, ready for use. A layer of paraffin oil is poured into each tube to shield the medium from the air and to prevent evaporation. In order to obtain the first growths of the spirochetes, no agar or gelatin should be added to the medium; later generations can, however, be secured in a solid medium. At first, strict anaerobiosis is required, but later this strictness is not essential. Indeed, certain strains of *Spirochæta pallida* grow in later generations in a deep serum agar culture in which the tissue is placed at the bottom which is merely covered with paraffin oil. In no case did any of the strains grow in the absence of tissue. In this respect they differ greatly from those described by Mühlens and Hoffmann, which grew readily not only in the absence of tissue but even of serum.

In almost all the first growths, the spirochetes are mingled with bacteria. As the *Spirochætæ pallidæ* do not grow at this time in solid media, purification is difficult. I have obtained this by permitting the spirochetes to grow through Berkefeld filters that hold back the ordinary bacteria for a longer period. This is accomplished after about the fifth day. Or the strains which, after a time, begin to grow in solid media may be separated from the bacteria by reason of the fact that while the latter remain confined to the stab-canal, the former penetrate, as a slight haze, into the surrounding medium, from which they can be removed in a pure state. Thus cultivated, the morphology is correct for the *Spirochæta pallida*, and motility is retained for some weeks. As would be expected from the conditions of growth, special arrangements and groupings of the spirochetes occur in the cultures.

PATHOGENICITY

Two strains of the *Spirochæta pallida* in pure culture have thus far been tested for pathogenicity by inoculation into the testicle of rabbits, and both have set up the typical lesions. The first strain was cultivated in October, 1910, the second in March, 1911. The aspirated fluid, taken during life, showed innumerable spirochetes which, viewed under the dark-field microscope or after Giemsa staining, presented the characteristic qualities of *Treponema pallidum*. The testicular tissue, stained with the usual histologic dyes or impregnated with silver salts by Levaditi's method, showed the usual cellular infiltration and countless spirochetes, precisely as after successful inoculation with syphilitic material from human beings.

CONCLUSION

It may be affirmed that *Treponema pallidum* has been made to grow in pure culture and that the cultures possess the usual pathogenicity for the rabbit.

It may be further stated that the testicular lesions produced in the rabbit by means of pure cultures of the *Spirochæta pallida* are identical with those set up by syphilitic materials, from which it follows that the cause of the syphilitic lesions in man, as of the testicular lesions in the rabbit, is *Treponema pallidum*.

The method will be described in detail in a forthcoming number of the *Journal of Experimental Medicine*.

* From the Laboratories of the Rockefeller Institute for Medical Research.

So-Called Thyroid Carcinoma of Brook Trout.—There is no stage of thyroid hyperplasia in brook trout that may be classified biologically as carcinoma. The incidence of true carcinoma in fish goiter is not greater than in mammalian goiter. Goiter is endemic in all hatcheries where the *salmonidæ* are artificially reared. Its severity is quantitatively related to the general hygienic conditions prevailing, and to the food, water-supply and degree of crowding. The immediate cause of goiter is unknown, but it depends in all probability on a disproportion in, or a lack of, certain of the elements necessary for proper nutrition.—D. Marine and C. H. Lenhart, in *Journal of Experimental Medicine*.

EXPERIMENTAL STUDY OF ANAPHYLAXIS IN CARCINOMA *

PRELIMINARY REPORT

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CINCINNATI

This series of experiments was undertaken to show the difference, if any exists, between the blood of normal individuals and those suffering from carcinoma.[1] To demonstrate this the anaphylactic reaction was employed.

Young guinea-pigs were used in the three experiments. Each pig, sensitized with blood-serum of a carcinomatous individual, had as a control pig of like weight, sensitized with normal blood-serum. At the height of the sensitization period—ten to fourteen days—each pig, cancer and control, received a large dose of serum from a cancerous individual.

REPORTS OF EXPERIMENTS

EXPERIMENT 1.—February 9: Serum A was obtained from vein of normal male adult, aged 40; Serum B, from a negro woman, suffering from a non-ulcerating carcinoma of the breast, with slight involvement of the axillary glands, the diagnosis having been confirmed by the microscope. Serums A and B were each diluted 1:50 with normal salt solution.

February 10: Guinea-pigs were inoculated intraperitoneally, the control set with serum A, the carcinoma set with serum B, in amounts varying from 0.01 to 0.5 c.c. The pigs were kept in pairs, A of each pair inoculated with normal serum, B with carcinoma serum.

February 22: The blood was obtained by venesection from a male, aged 62, with recurrent epithelioma of inside of mouth and glandular metastases of the neck; diagnosis confirmed by microscopic examination.

February 23: Five c.c. of the serum were injected into the abdominal cavity of each of the twelve pigs of both the carcinoma and normal sets.

The results of Experiment 1 are detailed in Table 1.

TABLE 1.—EXPERIMENT 1

RESULTS OF INOCULATIONS OF GUINEA-PIGS WITH CANCER SERUM AFTER SENSITIZATION WITH NORMAL BLOOD-SERUM AND WITH CARCINOMA-SERUM

Pigs A, sensitized with normal serum February 10; inoculated with 5 c.c. cancer serum February 22.

	Sensitizing Dose (c.c.).	Time Within Which Symptoms Appeared (min.).	Symptoms.	Duration of Symptoms (hrs.).	Result.
1	0.01	10	Twitching and dyspnea.	1 2/3	Recovery.
2	0.02	10	Twitching, convulsive movements and dyspnea.	2	Recovery.
3	0.04	..	No symptoms.		
4	0.1	10	Twitching, dyspnea, convulsions.	3	Death.
5	0.2	10	Convulsions.	2	Death.
6	0.5	..	No symptoms.		

Pigs B, sensitized with cancer serum February 10; inoculated with 5 c.c. cancer serum February 22.

1	0.01	15	Slight writhing.	...	Recovery.
2	0.02	20	Drowsy lying on side.	2/3	Recovery.
3	0.04	..	No symptoms.		
4	0.1	10	Slight twitching.	*	Recovery.
5	0.2	10	Drowsy lying on side.	1/2	Recovery.
6	0.5	..	No symptoms.		

* Short duration.

The symptoms when present were typically those of anaphylaxis; that is, appearing promptly and consisting of twitching, dyspnea and convulsions, and at times followed by death. It will be noted that in two pairs of pigs, Pair 3 sensitized with 0.04 and Pair 6 sensitized with 0.5 c.c., no symptoms whatever occurred in either Pigs A or B. It is particularly to be noted that the symptoms were far more pronounced in Pigs A, sensitized with normal serum, than in Pigs B sensitized with carcinoma serum; this difference being marked in each of the four remaining pairs. In detail:

Pair 1.—Sensitized with 0.01 c.c. A: Appearance of symptoms ten minutes, twitching, labored breathing and convulsions lasting one hour and forty minutes, ending in recovery. B: No symptoms.

Pair 2.—Sensitized with 0.02 c.c. A: Appearance of symptoms ten minutes, twitching, labored breathing and convulsions lasting two hours, ending in recovery. B: Appearance of symptoms fifteen minutes; merely slight drowsiness, lasting one hour, ending in recovery.

Pair 4.—Sensitized with 0.1 c.c. A: Appearance of symptoms ten minutes, followed by twitching, labored breathing and convulsions, ending in death in two hours. B: But a short period of restlessness, ending in recovery.

Pair 5.—Sensitized with 0.2 c.c. A: Symptoms appeared in ten minutes; convulsions, dyspnea and death in two hours. B: Short period of drowsiness, ending in recovery in one hour.

To sum up this experiment, four of the six pairs of pigs showed symptoms of anaphylaxis and in each pair the symptoms were far more pronounced in Pigs A; sensitized with normal serum, than in Pigs B, sensitized with carcinoma serum. All of Pigs B recovered, while two Pigs A died. It must be noted, too, that in this experiment the sensitizing carcinoma serum was obtained from a comparatively localized carcinoma.

EXPERIMENT 2.—April 24: Normal Serum A was obtained from a woman, aged 38.

Serum B was obtained from female, aged 40; recurrent carcinoma of uterus; diagnosis confirmed by microscopic examination.

April 25: In the same manner as in Experiment 1, guinea-pigs were inoculated intraperitoneally with Serum A and B, in amounts varying from 0.01 to 0.5 c.c. The pigs were kept in six pairs, as in Experiment 1, A of each pair inoculated with serum from a normal individual, B from the patient suffering from carcinoma.

May 4: Serum was obtained by tapping of ascitic fluid of a woman suffering from an advanced case of pelvic carcinoma; diagnosis confirmed by microscope.

May 5: Ten c.c. of the fluid were injected intraperitoneally into each pig, both A and B, and the results tabulated in Table 2. In the entire series of twelve pigs, each showed anaphylactic symptoms of more or less severity.

TABLE 2.—EXPERIMENT 2

RESULTS OF INOCULATIONS OF GUINEA-PIGS WITH CANCEROUS ASCITIC FLUID AFTER SENSITIZATION WITH NORMAL BLOOD-SERUM AND WITH CANCER SERUM

Pigs A, sensitized with normal serum April 24; inoculated with 10 c.c. of cancerous ascitic fluid May 5.

	Weight.	Sensitizing Dose (c.c.).	Time Within Which Symptoms Appeared (min.).	Symptoms.	Duration of Symptoms (hrs.).	Result.
1	300	0.01	10	Twitching; restless.	1/3	Recovery.
2	250	0.02	5	Tremor.	1/4	Recovery.
3	260	0.04	6	Convulsions.	1	Recovery.
4	230	0.1	6	Convulsions.	3	Death.
5	250	0.2	4	Convulsions.	4	Death.
6	Died before inoculation.					

Pigs B, sensitized with cancer serum April 24; inoculated with 10 c.c. cancerous ascitic fluid May 5.

1	275	0.01	10	Twitching; restless.	1/3	Recovery.
2	200	0.02	5	Tremor.	1/3	Recovery.
3	275	0.04	8	Slight tremor.	1/4	Recovery.
4	210	0.1	10	Slight tremor.	1/6	Recovery.
5	250	0.2	10	Slight tremor.	1/4	Recovery.
6	210	0.4	15	Slight tremor.	1/4	Recovery.

* From the Cincinnati Hospital Laboratory.

* Read before Cincinnati Research Society, June 1, 1911.

1. During the past few months articles on anaphylaxis in cancer by Maragliano, Isayo and Connell have appeared, without, however, recording positive results.

In the first two pairs sensitized, respectively, with 0.01 and 0.2 c.c., there were evanescent symptoms alike both in A and B, consisting merely of twitching and restlessness, beginning in five or ten minutes and lasting fifteen to twenty minutes. The animals suffered no permanent ill effects. In the remaining four pairs a different picture was presented. In each pair A, inoculated with normal serum, presented severe symptoms; in two instances death followed, while pigs B suffered scarcely any symptoms at all.

Pair 3.—Sensitized with 0.04 c.c. A: convulsions and dyspnea began in six minutes, lasted one hour, ending in recovery. B: Slight tremor lasting eight minutes, ending in recovery.

Pair 4.—Sensitized with 0.1 c.c. A: Symptoms began in six minutes, dyspnea and convulsions, ending in death in three hours. B: Symptoms began in ten minutes, slight tremor, ending in recovery in fifteen minutes.

Pair 5.—Sensitized with 0.2 c.c. A: Symptoms began in four minutes; dyspnea, spasms and convulsions, ending in death in four hours. B: Slight tremor of twenty-five minutes' duration, ending in recovery.

Pair 6.—Sensitized with 0.5 c.c. A: Death several days before inoculation. B: But slight tremor. In normal control pig, but slight tremor.

Experiment 1 was witnessed by Drs. Wherry, Friedlander and Newburg.

Experiment 2 was witnessed by Drs. Wherry and Brown.

The results of Experiment 3 were entirely unlike those of Experiments 1 and 2, and at the present state of investigation cannot satisfactorily be explained.

EXPERIMENT 3.—May 7: Serum A from normal adult male; Serum B from female, aged 60; extensive carcinoma of abdomen; confirmed by microscopic examination.

Twelve pigs were used and kept in pairs as before. Each pair was sensitized with 0.2 c.c., A of normal serum, B of carcinoma serum.

May 20: Serum was obtained by venesection from a male, aged 60; advanced carcinoma of pharynx; diagnosis not confirmed by microscope. Each pair of pigs was injected intraperitoneally with the serum in varying doses. Pair 1, 1 c.c.; Pair 2, 2 c.c.; Pair 3, 4 c.c.; Pair 4, 6 c.c.; Pair 5, 8 c.c.; Pair 6, 10 c.c. For the first few moments after injection it seemed as though Pigs A and B of Pairs 2, 3, 4 and 5 showed symptoms of restlessness. These, however, were of short duration and no pig of the entire series, either A or B, showed the slightest anaphylactic symptom. Both pigs of pairs 4, 5 and 6 died in the course of two hours with symptoms of poisoning, showing, however, neither tremor nor convulsions.

It is impossible to say why no anaphylactic symptoms occurred. It seems likely, however, that some deterioration of the serum may have taken place which disturbed its peculiar properties. The day was unusually hot and the serum was brought from the Jewish to the Cincinnati Hospital, after which it was necessary to centrifuge it at room temperature. Experiment 3 may for the present be disregarded and conclusions drawn from Experiments 1 and 2.

As is well known, anaphylaxis and immunity are so closely related that it is almost impossible to dissociate them. The delicacy of the anaphylactic reaction may be appreciated when it is seen that a pig may be sensitized by the injection of 0.01 c.c.

Judging from Experiments 1 and 2, there seems to be a tangible difference between the serum of normal individuals and those suffering from carcinoma. At first glance it would seem that the symptoms should have been reversed; that is, the animal sensitized with carcinoma serum should show more marked symptoms than those sensitized with normal blood-serum, when both were given a final large dose of carcinoma serum. Here appears the close correlation between anaphylaxis and immunity. Both pig A and pig B were sensitized to human blood-serum, whether carcinoma or normal. So that, when injected with carcinoma serum, they both showed anaphylaxis. But it is probable that pigs B sensitized with carcinoma serum were at the same time immunized to the action of that serum; so that when the final dose was given, they showed comparatively mild symptoms.

CONCLUSIONS

These experiments may develop into an aid to early diagnosis of carcinoma. This is particularly borne out by the fact that in Experiment 1, pigs B were sensitized with serum taken from a patient harboring a comparatively localized carcinoma of the breast with but slight glandular involvement. There seems, too, a possibility of work of this nature opening up a channel which may eventually lead to true cancer immunity and treatment by serum.

I desire to express my thanks to Dr. Wherry for his cooperation and advice.

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THE HEALING OF IRIDECTOMY WOUNDS AND ITS INFLUENCE ON GLAUCOMA *

ADOLF ALT, M.D.

ST. LOUIS

Glaucoma in its different forms, being as yet but partially understood, must needs still arouse the interest and particular study of every student. It is not astonishing, therefore, that the literature on the subject has reached an enormous magnitude and that the theories evolved concerning the etiology as well as the cure of this many-sided disease are becoming increasingly numerous.

It is not the object of this paper to go over the whole question; I intend to confine myself to the question of the healing of the iris wounds after iridectomy and to see in what manner the iridectomy may exert a curative influence in the course of a glaucoma.

In 1874[1] I made a large number of experimental iridectomies on rabbits in order to study the manner in which iridectomy wounds heal. I was aware then and am now that we cannot unhesitatingly apply experimental results obtained on animals' eyes to the human eye. Yet, in this particular case and in general in the healing of wounds, my histologic studies have shown no marked difference between the eye of a rabbit and that of man.

The normal healing of the wound in an iris which was healthy and which was not infected during the operation, according to my experiments, gave results as follows:

After the fibrinous coagulum containing erythrocytes, which in the first few days covers the iris wound, has been cast off or absorbed, the stump of the iris, in the microscopic section, appears in most cases swollen and knob-like, or at least rounded off; in others the wound edge is slanting obliquely with the more or less sharply pointed margin forward toward the anterior chamber or backward toward the posterior chamber.

The rounded-off or knob-like end of the stump after a few days, even, no longer presents a wounded surface. Its posterior part is covered with pigment epithelium, its anterior one with endothelial cells. Sometimes the cells

* Read in the Section on Ophthalmology of the American Medical Association, at the Sixty-Second Annual Session, held at Los Angeles, June, 1911.

1. Anatomic Changes Following Iridectomy, Arch. Ophth., iv, 423.

of one of the two surfaces predominate. Where the cells of both iris surfaces meet on the stump, they are often bent hook-like into the former wound, apparently drawn inward into the stroma of the iris by the retraction of its tissue. The cellular proliferation and the infiltration which follow the operation disappear in a few days.

When the iris has been cut obliquely, the sharp-angled flap is gradually bent back toward the obtuse one and thus the wound is closed after from six to eight days, and the stump is covered either with endothelium or with pigment epithelium according to the side the flap was on.

The first manner of healing of the iris stump may be called healing *per primam intentionem*, the second manner *per secundam intentionem*.

It appeared clear that the manner of healing depended on the direction of the cut made by the scissors, which, in the former produced two more or less equal flaps, which promptly collapsing closed the gap, while in the other case only one, either an anterior or a posterior flap, resulted, which by the contraction of the iris tissue was gradually bent over either backward or forward and thus the wound surface became closed. Figures 1 and 2 are from photographs of some specimens made at the time of these experiments.

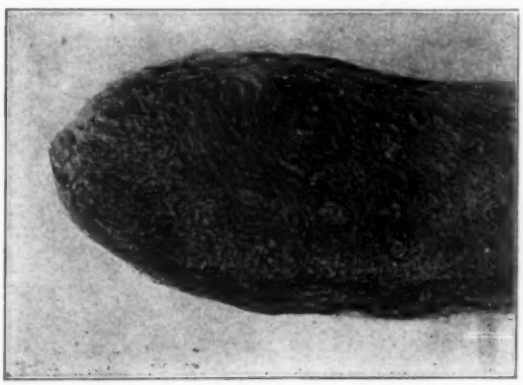


Fig. 1.—The stump of the iris from a white rabbit four days after the operation healed *per primam*. Stained with carmin.

Among the many microscopic sections made of these series of rabbits' eyes on which I had performed an iridectomy, when no complications interfered, the healing and covering over of the wound surface invariably took place in from a few hours to about eight days after the operation had been performed.

Through the kindness of the late Prof. Otto Becker, I was given an opportunity to examine a number of specimens from human eyes on which an iridectomy had been performed and, comparing these with my rabbits' specimens, we came to the conclusion that the manner of healing was very much the same in man as in the rabbit.

Ever since, I have carefully examined the few human eyes that I could obtain on which an iridectomy had been performed. Their number is not very large, and except in eyes on which a combined cataract extraction had been performed, the iris was probably diseased in every one before the iridectomy was made. The eyes from which a cataract had been extracted were enucleated on account of panophthalmitis and, therefore, also yielded no sections with a healthy iris. However, when the iris stump was not entangled in the wound or in an older cicatrix the conditions were not unlike those described above in the rabbit.

Yet I have seen a few iris stumps in which the wound did not seem to have healed in exactly the same manner. In these sections, it was either prevented from closing in the manner described by a blood-clot or fibrinous material at the time I examined it, or, in a number of eyes which had been operated on a long time previously, it was possible to demonstrate after all a thin layer made up of flat spindle cells coming from the anterior endothelium covered the apparently unclosed wound. There was in reality no raw surface.

The conditions of the wounds on the pillars of the coloboma were the same as at the base of the coloboma.

Fig. 2.—The stump of the iris from a dark rabbit eight days after operation, also healed *per primam*.

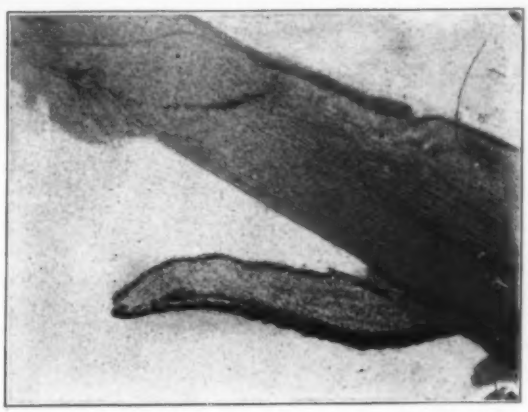


Fig. 3.—The wound of the iris stump is closing over, although the process does not seem quite accomplished. The pigment epithelium is slightly loosened from the iris tissue. This is probably a post-mortem occurrence. Primary union does not seem to have been quite accomplished in this case.

In a paper entitled, "A Histologic Study of the Normal Healing of Wounds after Cataract Extraction," Thomas Henderson[2] in his Figure 2, draws such a rounded-off iris stump, but does not refer to it in the text. From this drawing, it seems that the iris wound made during a combined extraction was healed, or healing in the manner here described, when the eye was removed twelve days after extraction. The paper is written to show that the iridectomy wounds resulting from a combined cataract extraction on a normal iris never heal.

2. Ophth. Rev., May, 1907

In a paper entitled, "The Histology of Iridectomy,"[3] the same author comes to the conclusion that "the severed iris tissue never shows any sign of scar, or other manifestation of reaction, for even years after the cut surface appears as if the operation had been performed post mortem."

In a recent book on glaucoma, Henderson[4] still further elaborates this same view and says: "The iris tissue forming the base and pillars of the coloboma always remains an open, raw, unhealed area, in free and open communication with the aqueous of the anterior chamber, in exactly the same manner as the crypt surfaces." The drawings in this chapter are repeated from the previous papers and refer to eyes on which a combined cataract extraction had been performed. Henderson bases his views on the effect of an iridectomy in glaucoma on the fact that iris wounds never heal.

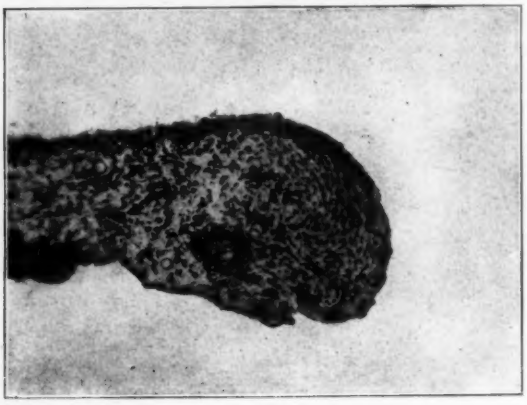


Figure 4

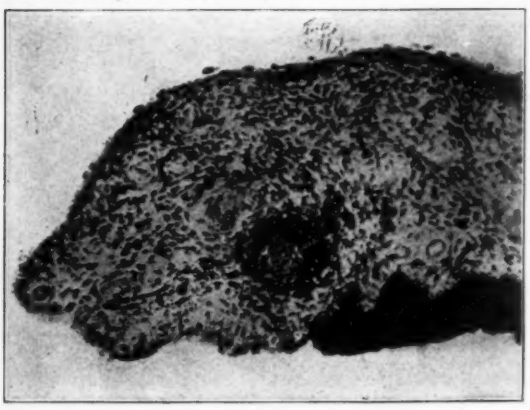


Figure 5

Figs. 4 and 5.—These illustrations give excellent examples of the primary union from an eye which was enucleated eight days after an iridectomy had been performed. In both of these figures there were apparently two flaps, an anterior one and a posterior one, the anterior one being the thicker, at least in Figure 5. The flaps have almost healed together and the line of contact can still be recognized by several rows of cells. The endothelium of the anterior surface seems to be creeping over the small gap. The pigment epithelium has for some distance fallen off, a condition which may be due to handling post mortem. The tissues are considerably infiltrated with round cells.

These results of Henderson's researches prompted me to study again all the specimens from human eyes in my collection which might have some bearing on this interesting question, the more so since, if Henderson's observations were correct, the effect of an iridectomy on the course of glaucoma could be more easily understood.

I was rather astonished to find that in almost all my human specimens of iridectomy stumps the iris tissue showed decided signs of inflammation; yet, since all came from eyes which it had been necessary to enucleate, this was, after all, quite natural, even in the sections from an eye which, after having been operated on previously by iridectomy, had been removed on account of a chorioidal sarcoma.

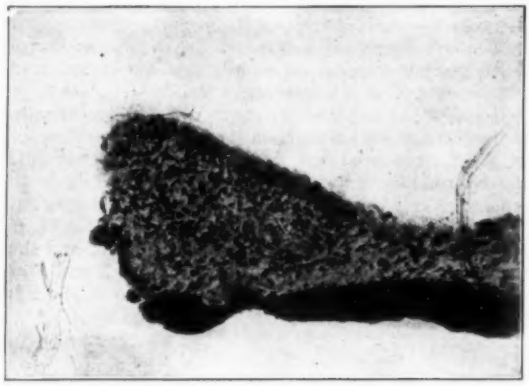


Fig. 6.—The stump is several weeks old and, although peculiar in its rather square than rounded-off outline, it seems to have healed by first intention. The posterior flap is covered by an interrupted pigment layer (post mortem); the anterior flap, also, does not seem to possess a continuous endothelial covering, yet there is no bare, raw surface.

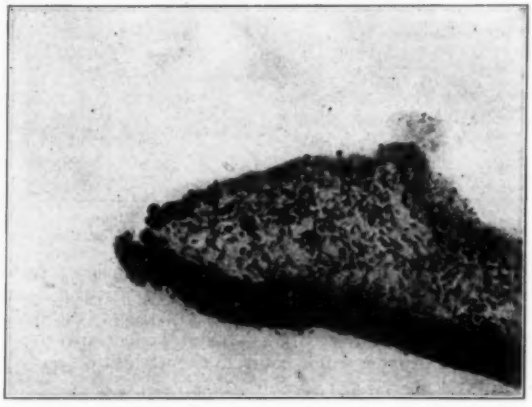


Fig. 7.—The stump has been cut off very obliquely. The larger part of the wound is covered with endothelium; the pigment layer reaches forward over the sharp angle to a small distance to where the two layers meet. The flap has evidently not been bent over the wound surface, as in other cases.

The illustrations in Figures 3 to 18 reproduce some of the characteristic sections.

Similar pictures from glaucomatous eyes with a healed stump are given by Henderson, who in this connection states that "when a stimulus is supplied by toxic or other agents cicatrization and sclerosis of the iris tissue follows in the same manner and governed by the same principles as elsewhere in the body."

According to this author, therefore, iridectomy wounds or other wounds made in the iris tissue when this is in a normal condition are never closed; such a closure takes

3. Ophth. Rev., July, 1907.
4. Henderson: Glaucoma, London, 1910, E. Arnold, p. 187.

place only when the iris has been previously diseased, as shown by atrophy and sclerosis, or becomes so, for instance, by infection during the operation. That is, according to his views, the healthy tissue of the iris, although provided with numerous blood-vessels in an active and functioning state, shows no reaction after being wounded, while the sclerosed and atrophied iris, as found in chronic glaucoma, seals up its wounds.

In 1896[5] I had occasion to describe an eye with iridodialysis and cyclodialysis in which I said:

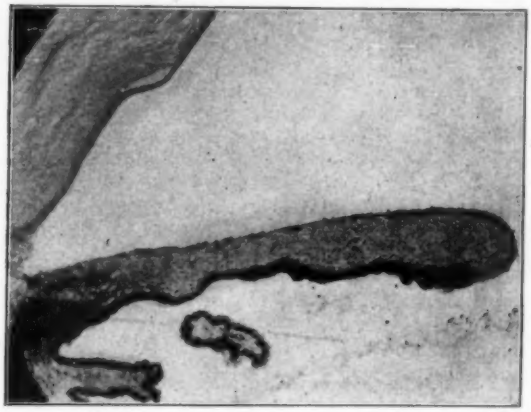


Figure 8

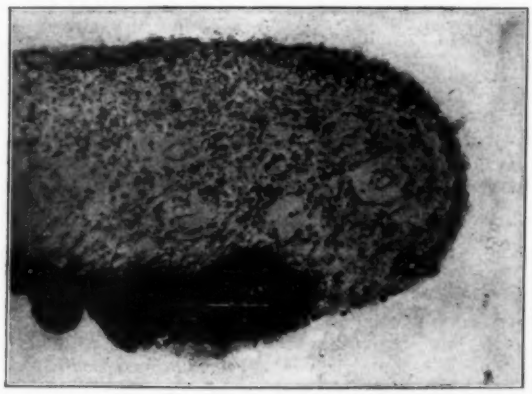


Figure 9

Figs. 8 and 9.—There seems to have been a long anterior flap which has, so to speak, fallen backward toward the pigment epithelium and thus closed the gap of the wound. The resulting round stump is perfectly covered over by anterior endothelium.

The detached iris tissue, besides being considerably contracted toward the sphincter edge, is atrophic, and contains a large quantity of blood-pigment and of uveal pigment, which is partly enclosed in cells, partly free. The walls of its blood-vessels are considerably thickened. The uveal layer is very thick, wrinkled and folded backward. The sections do not show any union of what may be termed the anterior and posterior flap of the tear, as I have seen it many times after an iridectomy or injury to the iris, etc. In this specimen there is simply a ragged edge.

From the foregoing, it seems certain that iridectomy wounds heal and are closed up permanently whenever the iris tissue is not normal. Henderson seems to agree with this statement. When the iris is normal they also

5. Am. Jour. Ophth., October, 1896, p. 296.

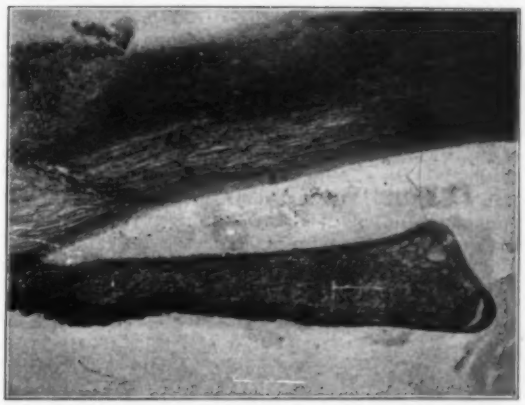


Figure 10

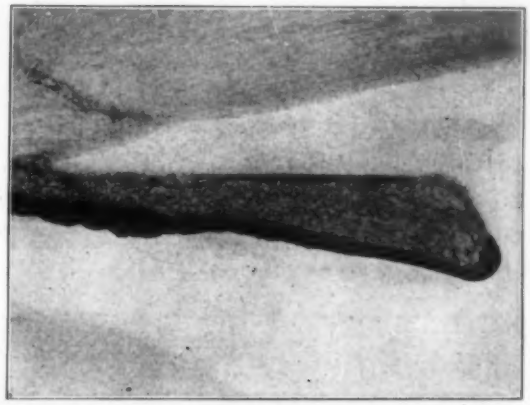


Figure 11

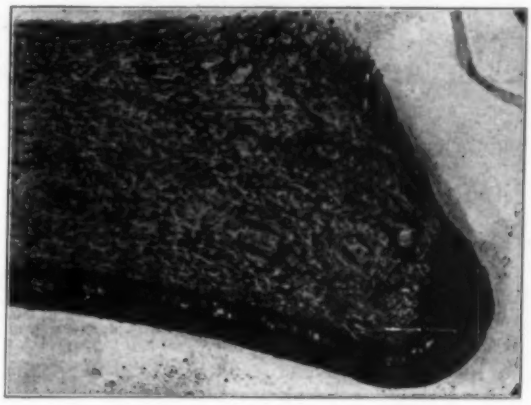


Figure 12

Figs. 10, 11 and 12.—The posterior flap seems to have been the longer one. The wound surface is perfectly covered over, the pigment epithelium reaching forward to quite a distance on the stump. A newly formed endothelial membrane covers the anterior surface of the whole iris, as well as the stump. This membrane, which is never wanting in older cases and is present in most quite recent cases of glaucoma, and which is the cause of the ectropium uveæ, which is also found as a rule in glaucomatous eyes, in these specimens seems to have pulled the pigment epithelium forward. The peculiar loosening of the pigment epithelium layer from its contact with the posterior surface of the iris may be the consequence of such a pull; it may also be that this patient suffered from diabetes, in which such a condition of the pigment epithelium seems the rule.

heal in the rabbit and have been seen to have healed in the human eye.

If a pathologic condition of the iris tissue is the *sine qua non* for the healing of the iridectomy wound, we certainly should expect that the wound of an iridectomy performed on a glaucomatous eye, except, perhaps, in the very earliest beginning of the disease, is certain to heal, as the iris tissue is never in a normal state. In such early stages the eyes are but seldom operated on. On the other hand, all observers are agreed that the earlier an iridectomy is performed, the better the result. Yet, while this is accepted as a general rule, chronic simple glaucoma is excepted from it, and for this form of glaucoma numerous substitutes for iridectomy have been invented and are being practiced with more or less success.

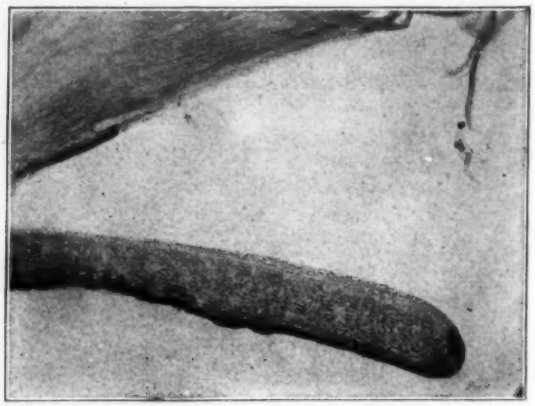


Figure 13

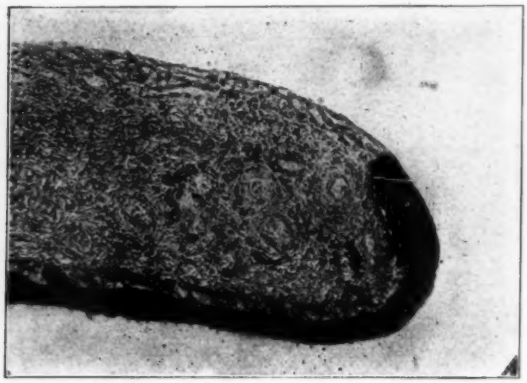


Figure 14

Figs. 13 and 14.—This shows a similar condition to that shown in Figs. 10, 11 and 12. The specimen is from another glaucomatous eye with an iridectomy stump of older date. There is less infiltration in the tissue of this stump than in the foregoing ones. It is almost altogether covered with pigment epithelium. The whole anterior surface of the iris and the stump is covered with an endothelial membrane.

How an iridectomy succeeds in reducing the abnormal intra-ocular pressure and in curing glaucoma, is a question which undoubtedly has agitated the mind of every thinking ophthalmologist since von Graefe first recommended this operation.

There are so many theories concerning the etiology of glaucoma that it would lead too far to enumerate them in this paper, especially since they are all well known. It seems altogether impossible to reach a definite conclusion. Only one thing seems to become more and more certain—that is, that a pathologic process in the general, perhaps, but surely in the intra-ocular blood-vessels is directly responsible for the glaucomatous state.

In a general way, more fluid must be secreted into the eye-ball than can be carried away, or the nature of the intra-ocular fluids must be so altered that their consistency does not allow them to leave the eye through the preformed channels, even if the latter were normal; or, finally, the means of egress, even with a normal formation of intra-ocular fluids, must become closed by some pathologic process, in order to produce an increase of intra-ocular tension.

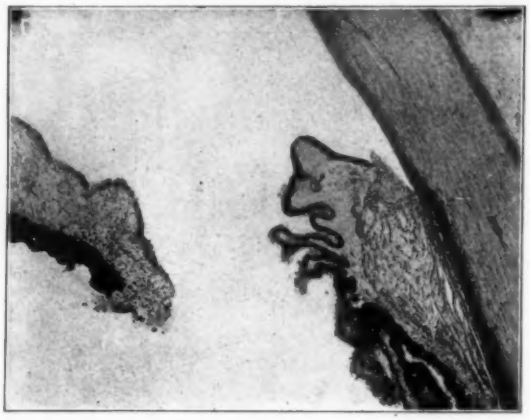


Fig. 15.—This shows the torn edge of the iris which has apparently not healed over. The section is from the center of the iridodialysis where, all blood-vessels being torn, no reaction seems to have followed the injury.

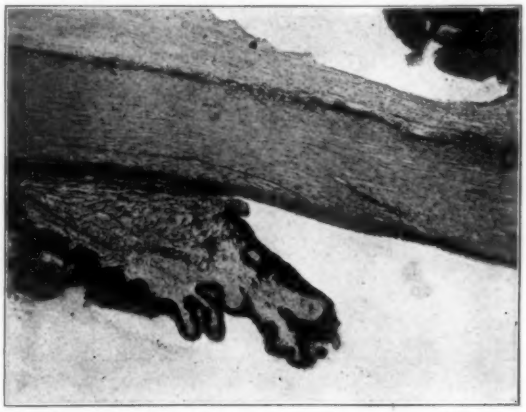


Fig. 16.—This gives a better view of the cyclodialysis associated with the iridodialysis in this eye. The ciliary body is drawn backward from its insertion on the corneoscleral tissue. The little stump made up of the tendon of the ciliary muscle and some iris tissue is well healed over. In this same eye at the time of the injury a further wound was caused in the sphincter edge of the iris, very similar to what an iridectomy might cause at the base of the coloboma. See Figures 17 and 18.

If we still believe that the iris angle is preeminently the place of exit for the fluids from the eye, and I confess to a firm adhesion to this opinion, we must, also, see the main cause of the glaucomatous state in a blocking up of this angle, whether this be due to a mere application of the iris periphery to the ligamentum pectinatum by swelling or pressure from behind, or to a

true and firm adhesion between iris and ligamentum pectinatum and later Descemet's membrane, or finally to a plugging of the meshes of the ligamentum pectinatum by cellular or other substances carried there, which on account of their size or on account of their consistency cannot pass out as the normal limpid fluids do.

What influence can an iridectomy exert on these conditions? The question is as difficult of solution as the one concerning the etiology of glaucoma.

Henderson accepts[4] the obstruction of the iris angle. Yet, in his explanation of the action of an iridectomy he adduces the unhealed iris wounds of the "normal iris" and says: "Iridectomy effects the formation, so to speak, of a large open crypt presenting three sides of a square, the raw surface of which allows of the free passage of the aqueous to the iris veins. The primary obstruction presented by the sclerosis of the cribriform ligament is thus counterbalanced, etc." Granted that this is true, what happens when the wound of the iris heals and then instead of a new large open crypt having been formed, the absorbing (?) surface is reduced by the amount of iris tissue removed by the iridectomy?

In another recent work J. Kuschel,[6] who believes that the increased pressure is due to sclerosis of the tissues and to an obstruction to the flow of the fluids from the vitreous body into the anterior cavities of the eye, states that the effect of the iridectomy is due with the greatest probability to a rupture in the zonule of Zinn and the anterior limiting layer of the vitreous body during the operation. This assumed rupture, in his opinion, relieves the tension in the vitreous body and the excision of a piece of iris renders a direct connection between the vitreous and aqueous bodies sufficient to allow the fluids to pass out from the vitreous body thereafter. Here, then, the iridectomy appears to be of secondary value only; the rupture of the zonule of Zinn and of the anterior limiting layer of the vitreous body are of prime importance. And yet it seems to be a well-established fact that a rupture of the zonule of Zinn with the consequent subluxation of the lens can give rise to a secondary glaucoma.

Since Lagrange's introduction of his sclerecto-iridectomy, several other methods of making a permanent hole in the sclerotic have been devised, all in the hope of adding to the benefits of an iridectomy that of a filtering scar. But the proof that the resulting scar, if it ever is, will remain a filtering one is wanting, and I am afraid will remain so. That the bulging of the tissue which covers the scleral opening adds still more to the room which the fluids of the eye can occupy is true, but what gives us a right to assume that the conjunctiva covering the hole allows any fluid to filter through? Does a staphyloma of the sclerotic, even if stretched to bursting, let any fluid pass through? I at least have never seen it, although I have examined staphylomata which were so thin that the cicatricial conjunctiva covering the scleral hole cannot be much thinner. And, if the scleral hole reestablishes filtration, why add an iridectomy? The value of the scleral hole, if it remains permanent and covered by a thin tissue layer only, seems to lie in the fact that this thin tissue is more elastic and can yield somewhat to an occasional rise of intra-ocular pressure.

From these and other considerations, and from the fact that iridectomy wounds in glaucomatous eyes do heal, as a rule, the beneficial effect of an iridectomy, it seems, must be due to some thing or things which happen when and while the operation is being performed. We know that in some cases the iridectomy does not reduce the intra-ocular pressure; in such cases this something evidently cannot or does not happen. We know that in some cases even a poorly made iridectomy cures a glaucoma, although the classic broad peripheral iridectomy is looked on as the only correct operation. We have all learned from experience that sclerotomy, much vaunted at one time, is inadequate for the relief of an established glaucoma. The value of the iridectomy

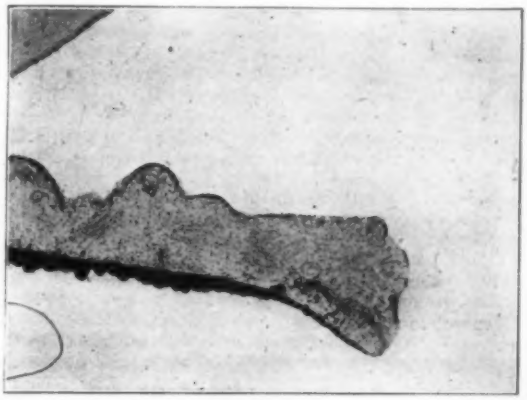


Figure 17

Figure 18

Figs. 17 and 18.—These illustrations show a wedge-shaped gap in the pupillary edge, apparently filled with a similar tissue, but less compact than the old iris tissue, and containing some blood-vessels. It appears, therefore, as if the two flaps formed by this peculiar rent had been united by a wedge of newly formed tissue. The surface of this scar is covered by a layer of anterior endothelium, which varies considerably in thickness.

with an incision in the corneoscleral margin—if not quite as peripheral, perhaps, as in sclerotomy—cannot, therefore, be due to this incision.

Thus we come back to the probability that, after all, the excision of a piece of iris of sufficient size is the main part of a glaucoma operation. To this may be added a certain amount of reopening of the filtration angle, if only in parts, during the execution of the iridectomy, perhaps, by the direct pull on the iris by which a part of the peripheral iris adhesion may be loosened.

If this is the case, there seems to be only one solution to this question, and this is that the iridectomy, instead

6. Der Intraoculare Flüssigkeitsstrom in seinen Beziehungen zum biochemischen Aufbau des Auges unter gesunden Verhältnissen, beim Glaucom und bei der Kurzsichtigkeit, p. 123.

of opening up new filtration ways, as Henderson thinks, reduces in reality the secretion of fluids into the eye or alters their composition.

The conclusion thus arrived at through the study of the healing of iridectomy wounds is not only not new, but was the very explanation for the action of iridectomy on glaucoma offered by von Graefe himself. How the excision of a piece of iris, which does not seem to be a secreting membrane, does bring about this result, it is still impossible to say and must be left to future studies.

316 Metropolitan Building.

[THE DISCUSSION ON THIS PAPER WILL BE FOUND ON A LATER PAGE OF THIS ISSUE UNDER THE HEADING OF "SECTION DISCUSSIONS."]

TWO CASES OF CONGENITAL HYDRONEPHROSIS

DANIEL N. EISENDRATH, A.B., M.D.

CHICAGO

The two following cases occurred in my service in the surgical department of the Michael Reese Hospital, and are thought to be of sufficient interest to the profession in general to warrant their publication:

Fig. 1.—Front view of palpable, soft, elastic tumor in Case 2, a case of congenital hydronephrosis, before inflation of colon. There was a distinct notch to be felt at the middle of the tumor corresponding to the hilum of the kidney.

CASE 1.—*Congenital Hydronephrosis of a Horseshoe Kidney. History.* — S. L., male, aged 6, was admitted to the pediatric department of the Michael Reese Hospital (service of Dr. I. A. Abt), July 20, 1908, with the following history (obtained from the father): The child had been healthy as an infant; had scarlet fever and measles at age of 5; present illness began suddenly about two weeks before admission with severe pain in the right side of the abdomen, accompanied by vomiting. The pain was quite well localized and did not radiate. This improved, but recurred about twenty-four hours before admission. The pain was quite severe, accompanied by frequent vomiting and fever. Examination on admission showed a well-nourished boy with heart and lungs negative. On the right side of the abdomen there was visible a distinct prominence, located a little above the level of the umbilicus. There was some rigidity of the overlying abdominal muscles and the mass was quite tender. One could distinctly follow the mass across the median line to the left. A sketch was made of the transverse nature of this mass but its interpretation was not possible before operation. The temperature during the first twenty-four hours varied between 98.6 and 100 F. The leukocyte count was 12,200; pulse 136. During the following three days the temperature was only slightly above normal. The child was transferred to my service on the fourth day, on account of its rapidly increasing septic condition. The leukocyte count on this fourth day rose rapidly from 11,900 to 17,000. From the position of the mass described above, the abdominal rigidity, leukocytosis and general condition, the diagnosis of appendicitis in a non-rotated appendix seemed the most probable one, and operative interference was decided on.

Operation.—An incision was made through the right rectus muscle over the most prominent portion of the mass. On opening the peritoneal cavity a small amount of serofibrinous fluid escaped. The appendix appeared normal and was located in its proper position in the right iliac fossa. It was now to be seen that the transverse mass felt through the abdominal wall was a horseshoe kidney, the right pole or end of which was converted into a translucent, thin-walled sac. One could feel the isthmus of renal parenchyma which passed across the median line and terminated in a similar enlargement of the left kidney, which, however, was considerably smaller than that of the right side. The surface of the right end of the hydronephrotic horseshoe kidney was so close to the abdominal incision that I deemed it advisable to suture the sac to the parietal peritoneum of the incision. On opening the kidney sac, a considerable quantity of straw-colored, clear, odorless fluid escaped. A drainage tube was inserted and the ordinary dressings applied. After discharging watery fluid for some

Fig. 2.—Front view of kidney in Case 2. This shows the enormous dilatation of the kidney pelvis and the narrow margin of parenchyma, with prominences due to dilated calyces. Note the narrowness of the ureter at its junction with the pelvis.

days, the wound healed by granulation, the child being discharged Aug. 19, 1908 (four weeks after admission). Immediately after draining the right end of the horseshoe kidney, the septic condition of the child began to disappear, and the convalescence was uninterrupted.

Comment.—In this case the hydronephrosis had probably existed for a number of years, judging by the size which the right end of the horseshoe kidney had attained. It is reasonable to deduce that in the absence of any marked dilatation of the ureters, the obstruction must have been close to the renal pelvis as in Case 2.

That congenital hydronephrosis of a horseshoe kidney is not so rare, is shown in a recent article by Papin and Christian.[1] They found hydronephrosis in horseshoe kidneys in fifteen autopsies. Nine patients have been operated on for this condition by Albarran, Israel and

1. Papin and Christian: Ann. d. mal. d. org. génito-urin., xxviii.

others. The cause of the hydronephrosis in these cases was either congenital stricture of the ureter or faulty insertion of the ureter.

An interesting feature of my case is that the condition remained latent until infection occurred. From that time on the clinical picture resembled that of any of the conditions giving rise to the so-called "acute abdomen," such as appendicitis, etc. The diagnosis was impossible before operation, under these circumstances.

CASE 2.—*Enormous Congenital Hydronephrosis in a Boy of 12.*

History.—H. H., a boy aged 12, was referred by Dr. Van Dellen, of Chicago, on account of an enlargement of the abdomen which had steadily increased in size for the preceding two years. The boy had never had any of the eruptive diseases of childhood. The father stated that his abdomen had been quite large since birth, but this had been most noticeable during the six years before being seen by me. During these six years he seemed to fatigue easily, could not walk much and was not well nourished. He voided large quantities of urine, but there were no symptoms referable to the urinary organs. He was sent to my service March 27, 1911, by Dr. Van Dellen. The boy was not so tall and did not weigh so much as the average boy of his age.

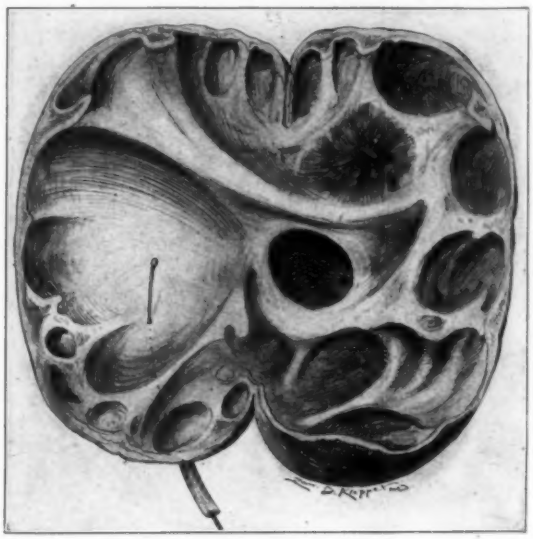


Fig. 3.—Interior of kidney in Case 2. Note the narrow rim of kidney tissue, dilated calyces and pelvis and the small orifice of the ureter, through which filiform bougie is inserted.

Examination.—Inspection revealed a prominence of the entire abdomen, which was most marked on the left side, extending from the costal arch above to Poupart's ligament below, and beyond the median line (Fig. 1), toward the right. This extension to the right was especially noticeable in the right upper quadrant. On palpation one could easily outline a soft semifluctuating tumor, which showed a projection toward the right, extending beyond the mid-line, at its upper and lower ends. Between these two was a distinct sulcus. The two more prominent ends were shown at operation to be the upper and lower poles of the kidney, respectively, and the sulcus was the hilum of the kidney. One could not distinguish any posterior limits of the tumor as it passed directly over into the kidney region behind. Dulness was present over the entire tumor and there was no change on shifting the patient's position. The colon when inflated was seen to lie in front of the tumor, thus confirming my diagnosis of its retroperitoneal nature. The cystoscopic examination by Dr. I. S. Koll showed a normal bladder with two normally-placed ureteral openings. From the left ureter turbid urine escaped; from the right one, clear urine. Ureteral catheterization was, however, impossible, owing to the constant filling up of the bladder with turbid urine, evidently escaping from the left hydronephrotic kidney. The urine showed a large number of pus corpuscles, but no casts. The diagnosis of congenital hydronephrosis was confirmed by the subsequent operation.

Operation.—Nephrectomy, March 24, 1911. The patient was placed in the right lateral position and the usual oblique kidney incision made in the left iliocostal space. On exposing the tumor, the latter was found to be retroperitoneal, and was soft, fluctuating and translucent. A trocar was inserted and about 2 quarts of thin turbid fluid escaped. The kidney, now collapsed, was gradually brought into the wound and the vessels at the hilum exposed, in order to see whether an aberrant renal artery was present as the cause of the hydronephrosis. No such aberrant vessel was found. The kidney was removed and the abdominal wound sutured in layers and drainage inserted. The boy made an uneventful recovery and the wound was entirely healed three weeks after operation.

Examination of the fluid removed by trocar showed it to be urine containing a large number of pus-corpuscles. Cultures were made from this by Dr. D. C. Strauss, but remained sterile. The kidney showed the typical changes of an enormous hydronephrosis (Figs. 2 and 3). The entire kidney when filled with fluid must have been about the size of an adult head, judging from its capacity after removal. The cause of the obstruction was undoubtedly a congenital stricture of the ureter, to be plainly seen in Figure 2. Close to its junction with the renal pelvis, the ureter, which was of normal size from this point downwards, suddenly became greatly narrowed so that it would scarcely admit even the smallest sized filiform urethral bougie. On opening the renal pelvis (Fig. 3), one could confirm this by noting the extremely small orifice of the ureter. In the illustration this minute opening of the ureter into the renal pelvis is shown by the long black shadow of a filiform bougie. A view of the interior will enable one to grasp the enormous dilatation of the renal pelvis and the greatly thinned-out renal parenchyma. The latter is present only in the form of a peripheral zone, not averaging more than ¼ of an inch in thickness. One can readily understand why such a hydronephrosis may rupture either spontaneously or as the result of trauma, instances of which have been collected by von Saar.[2]

Remarks.—The most interesting points are, (a) the diagnosis before operation of congenital hydronephrosis; (b) the congenital stenosis of the ureter as the cause of the obstruction to the escape of the urine, and (c) the fact that such a large hydronephrotic kidney could be present practically without symptoms except enlargement of the abdomen and emaciation since birth.

31 North State Street.

AN INSTRUMENT FOR RECTAL OPERATIONS, ESPECIALLY THE WHITEHEAD

W. J. WOOLSTON, M.D.
CHICAGO

The instrument (Figs. 1 and 2) consists of a conical rubber plug, to one end of which is fastened a metal band (Fig. 2, *e*), which has an attached handle for the purpose of manipulation. At the proximal border of this band is a deep, narrow groove which is for the purpose of holding a silk purse-string (Fig. 2, *a*).

The technic is as follows: A silk purse-string suture is placed around the anus at the junction of the anal integument (Fig. 2, *c*) and mucous membrane. The boiled instrument is covered with sterile oil or petrolatum and introduced into the rectum as far as the groove in the band (Fig. 2, *a*). The mucous membrane is then arranged so that the purse-string can be drawn into the groove and tied (*a*). A circular incision of the

anal integument is made and by slight traction downward the sphincter muscle (*c*) can be brought into view. The sphincter is then pushed up by blunt dissection to a desirable height and any visible, dilated veins ligated.

Four mattress sutures (Fig. 2, *d*) are placed at equal distances, around the circumference of the anus, uniting mucous membrane to integument at a point where the rectum is to be severed. The bowel (Fig. 2, *b*) lying on the rubber plug is then split longitudinally to the height where the rectal wall is to be severed circularly, which

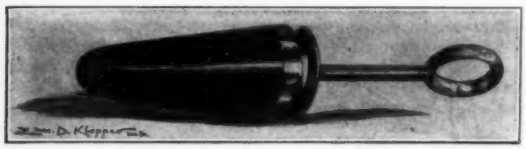


Fig. 1.—Instrument for rectal operations, especially the Whitehead.

procedure then follows. The circular incision is made in about half-inch sections, so that hemorrhage may be controlled and proper approximation be obtained to coapt the margin of the rectal wall and integument.

The operation is performed on the rubber plug, occluding the bowel in such a manner that no contamination of operator or field of operation takes place.

Time is saved as the dissection of the rectum takes place on a firm base and the bowel is distended.

The original idea of this procedure belongs to Dr. Djemil Pacha of Constantinople. An instrument with this principle in view is one brought out by Dr. Silbermark of Vienna. His instrument consists of a conical rubber plug, fastened to a metal handle; the wing-like end is connected with a screw-axle, through the rotation of which four hooks grasp the ring on closure of the instrument.

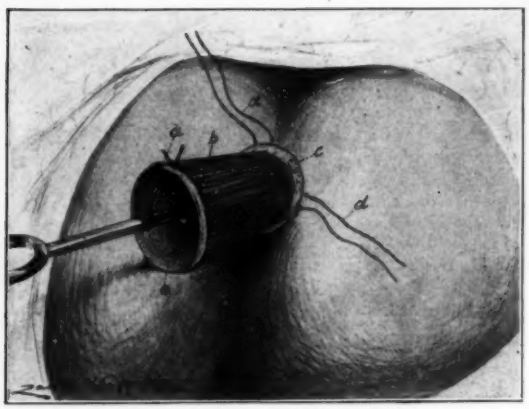


Fig. 2.—Rectal instrument inserted.

The idea of the present modification is to simplify the instrument and render it more efficient.

4101 Evanston Avenue.

Overpopulation and Tuberculosis.—"Consumption is a product of civilization," says W. Hutchinson in the *Survey*. "What civilization has created, it can cure. That pressure of man against man, which we term 'overpopulation,' which sharpened his wits and made civilization, also made tuberculosis as a by-product. . . . The death-rate from tuberculosis is a function of the density of the population—the greater the density the higher the death-rate."

FRACTURE OF ANATOMIC NECK OF HUMERUS

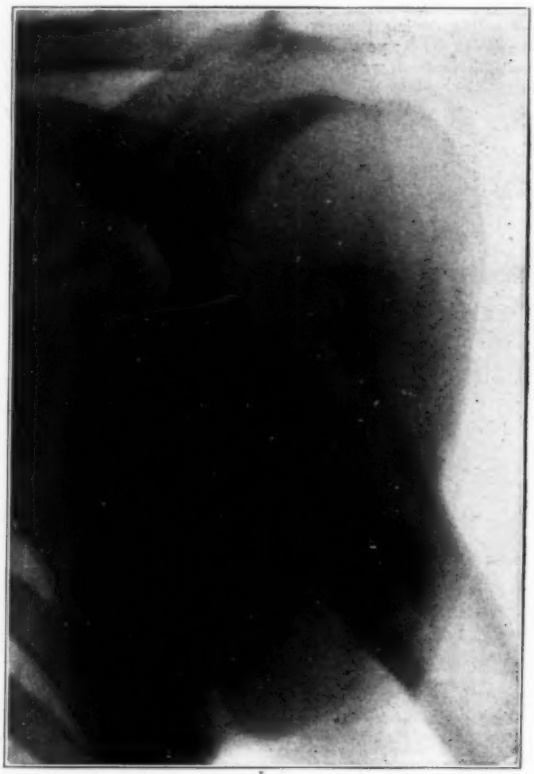
WITH SUBCORACOID DISPLACEMENT OF LOWER FRAGMENT

J. WARREN WHITE, A.B., M.D.

NORFOLK, VA.

Patient.—W. S., a colored man, aged 50, gave a history of having had a fall on his right shoulder several weeks prior to the time I saw him. The right arm as a result was absolutely useless. As a physician was called in to see him at the time of the accident, I infer that others failed in the diagnosis.

Examination.—I found what I thought was a subcoracoid dislocation of the humerus. After an unsuccessful attempt at reduction, under general anesthesia, I performed an arthrotomy, and found that what I had thought to be the head of the humerus was the displaced lower fragment. The end of the bone was smooth and convex. The articular surface of the bone had been shelled off and left in the glenoid cavity.



Radiograph, taken twelve months after the operation, in a case of fracture of the anatomic neck of the humerus, with subcoracoid displacement of lower fragment.

Operation.—The upper fragment was left undisturbed. After pushing back the periosteum, about 1 inch was resected from the lower fragment and the end covered by the periosteal flap. The contiguous muscle was then sewed over the end of the bone, making a bed for it just below the glenoid cavity. The arm and forearm were bandaged across the chest. On the sixth day, passive motion was begun.

Outcome.—It is now eighteen months since the operation. The contour of the right shoulder is symmetrical with that of the left. The patient, who is working as a carpenter, states that the functional result of the operation is perfect, as he has absolute use of his right arm.

THE PERIOD OF INFECTIVITY OF THE BLOOD IN MEASLES *

JOHN F. ANDERSON
Director Hygienic Laboratory
AND
JOSEPH GOLDBERGER
Passed Assistant Surgeon, U. S. Public Health and Marine-Hospital Service
WASHINGTON, D. C.

In our supplemental note[1] we published in some detail the experiments of which our first note[2] was a brief summary. It will be recalled that up to that time we had inoculated nine rhesus monkeys with blood from four human patients with measles, and that of these animals only four (Nos. 38, 12, 6 and 8) had given any very significant evidence of a reaction, and that only two of these (Nos. 6 and 8) were clearly marked. In other words, of nine animals inoculated only two gave unmistakable reactions, two others gave reactions that we regarded as significant, while in the remaining five a reaction was either not appreciable or at most only suggestive. This result we were at first disposed to regard as due to a low degree of susceptibility in the monkey, combined with a considerable degree of individual variation.

In spite of this explanation it struck us as peculiar not only that both animals inoculated with the blood from Patient 4 should have given well-marked reactions, but that of four other monkeys inoculated with blood from these two, at least three gave well-marked reactions. With this doubt of the adequacy of a slight and variable susceptibility to explain this result in our minds, we reexamined the details of our experiments and were struck by the fact that the blood from the patients in our first three cases was obtained after an interval of between thirty and forty-two hours in Case 1, after an interval of between twenty-four and twenty-nine hours in Case 2, and after an interval of between thirty-two and forty hours in Case 3, from the first appearance of the eruption, while in Case 4 the blood was obtained after an interval of only between fourteen and eighteen hours from the first appearance of the eruption.

The thought at once suggested itself that in measles we might have a disease in which the infectivity of the blood was limited more or less sharply to the early stages, somewhat as in yellow fever, the resemblance of the temperature curve of which to that of measles had already struck us. We, therefore, determined to test this point at the first opportunity.

May 28, 1911, we were advised by Miss Kramer, Assistant Superintendent of Garfield Hospital, of the admission to the measles pavilion of a patient with the eruption just appearing. Through the kind courtesy of Dr. J. D. Morgan we obtained some blood from this case.

The patient was a colored girl, 18 years old, who stated that she was taken sick on the morning of May 24, and that she first noticed an eruption on the morning of May 28. The blood was drawn at 6:15 p. m., May 28, at once defibrinated and taken to the laboratory. We inoculated three monkeys as follows:

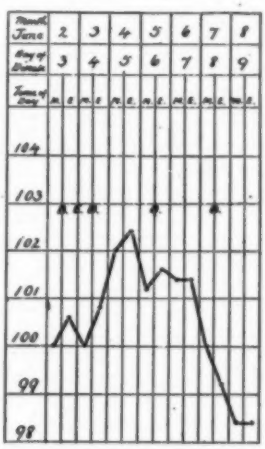
Rhesus 41 received 0.5 c.c. of defibrinated blood intracerebrally and 3 c.c. intraperitoneally.

Rhesus 75 received 0.5 c.c. of blood-serum intracerebrally and 2 c.c. intraperitoneally.

Rhesus 77 received 0.5 c.c. of a suspension of washed corpuscles intracerebrally and 3 c.c. intraperitoneally. The corpuscles were washed four times with physiologic salt solution, then brought to the original volume of the defibrinated blood with the salt solution.

The result of this test was at first rather unexpected. Of the three animals inoculated, only one gave any recognizable evidence of a reaction; this animal (No. 77) presented a rise of temperature beginning June 8, eleven days after inoculation, and terminating June 11. There was no eruption, no cough, no coryza.

We say that this result was unexpected because in this instance the blood was obtained apparently at about the end of twelve hours from the appearance of the eruption, and if our theory was correct we felt that we should have obtained reactions not only in a larger proportion of the animals, but also reactions that should be more clearly marked. A critical analysis of the history of the patient furnishing the blood, however, makes it evident that the eruption may have been at least ten or twelve hours older than at first appeared. The patient being a mulatto, the eruption could very easily have made its first appearance in the late afternoon or early evening of May 27, and so escaped her observation until the following morning. In view of this possibility we felt that this experiment could not be considered as negativing our theory and, therefore, we prepared to put it to further test in our next case.



Course of temperature in Case 6. B, bled; E, eruption appearing.

Through the courtesy of Dr. William A. White we saw the next patient (Case 6) before the appearance of the exanthem. This patient, an attendant at the Government Hospital for the Insane, stated that she was first taken sick with a cold in the head on May 31, 1911. We bled this patient on four separate occasions (see illustration 1). The first bleeding (June 2, 1911) was a few hours before the eruption began to appear and while the patient's temperature was between 101 and 100 F.

This blood, after defibrination, was inoculated into two monkeys, one (No. 78) a *Macacus cynomolgus*, the other (No. 79) a *Macacus rhesus*. Both animals gave a short but definite reaction that was at its height ten days after inoculation.

The second bleeding (June 3), exactly twenty-four hours after the first, and about eighteen to twenty hours from the very first appearance of the exanthem, was at a time when the patient's temperature was between 101.6 and 101.3 F., and when a definite eruption was already present, but not fully developed.

After defibrination a portion of the blood was centrifugalized and the serum pipetted off. The corpuscles remaining were washed four times with physiologic salt solution. After the fourth washing the supernatant fluid was pipetted off, replaced for the fifth time with salt solution and the resulting suspension of corpuscles,

* From the Hygienic Laboratory, U. S. Department of Agriculture.

1. Anderson, John F., and Goldberger, Joseph: Experimental Measles in the Monkey: a Supplemental Note, Pub. Health Rep., June 16, 1911, p. 887.

2. Anderson, John F., and Goldberger, Joseph: Experimental Measles in the Monkey: a Preliminary Note, Pub. Health Rep., June 9, 1911, p. 847.

equal to the original volume of defibrinated blood, was used for the inoculation of a rhesus monkey (No. 88). This animal received 3 c.c. of this suspension intravenously.

A second monkey (Rhesus 83) was given 3 c.c. of the blood-serum intracerebrally, but a considerable proportion (we estimate one-half) was lost during the inoculation.

At the same time a third monkey (No. 84) received by intracardiac injection 3 c.c. of the defibrinated blood mixed with an equal volume of defibrinated blood from a normal rhesus. This animal served as a control for another experiment that will be reported in a later paper.

All three animals gave well-marked reactions with the appearance of an exanthem.

The third bleeding (June 5), forty-five hours after the second, was at a time when the patient's temperature was 101 F. and the eruption fully out. The blood was defibrinated and two monkeys inoculated; Rhesus 89a received 3.5 c.c. and No. 89b received 4.5 c.c. intravenously.

The general level of the temperature in both these animals was unusually high from the beginning and so continued for about two weeks; in the case of No. 89a there was noted, in addition, a rise above this level suggestive of a reaction. We think, however, that the generally high level of the temperature in both animals and this additional rise in one of them is to be accounted for by a diarrhea from which both animals suffered. Improvement in the diarrhea and a lowering of the temperature seemed to go hand in hand.

The fourth bleeding (June 7), about forty-eight hours after the third, was at a time when the eruption had almost, but not quite, faded from all parts of the body and desquamation had begun. Two rhesus monkeys were inoculated with the blood after defibrination; one (No. 90a) received 4 c.c. intravenously and 0.5 c.c. subcutaneously, the other (No. 90b) received 4.5 c.c. intravenously and 2 c.c. subcutaneously. At this writing, twenty-one days after inoculation, neither animal has presented evidence of a reaction.

Summarizing the results obtained from inoculations from this patient (Case 6) we have, first, a definite febrile reaction in both of two monkeys (one a *Macacus rhesus*, the other a *Macacus cynomolgus*) inoculated with blood obtained a few hours before the first appearance of the exanthem; second, marked reactions in all of three rhesus monkeys inoculated with blood (one with defibrinated blood, one with serum, and one with washed corpuscles) obtained about eighteen to twenty hours from the very first appearance of the eruption; third, no evidence of a reaction in one and at most a very doubtful reaction in the second of two animals inoculated with blood obtained about sixty-five hours after the first appearance of the eruption; fourth, no indications of a reaction in either of two monkeys inoculated with blood obtained 113 hours after the first appearance of the eruption.

This would indicate that the blood in our Case 6 was infective for the monkey just before the appearance of the exanthem (late in the preeruptive stage), during the stage of efflorescence of the exanthem (eighteen to twenty hours after its first appearance), that it had almost, if not quite, completely lost its infectivity sixty-five hours after the first appearance of the eruption, and that it was no longer infective 113 hours after the first appearance of the eruption.

Considering now, as a whole, the results obtained from inoculations with human blood from our six cases, we believe that they consistently point to a period of infectivity of the blood beginning at least just before and continuing for about twenty-four hours after the first appearance of the exanthem. At the end of about twenty-four hours from the first appearance of the eruption the infectivity of the blood for the rhesus monkey already appears very greatly reduced, and becomes progressively less thereafter.

It will be recalled that Hektoen[3] (1905) found the blood infective thirty hours after the first appearance of the rash; but it should be pointed out that he worked with a much more susceptible animal—man. So that it would not be at all surprising if the period of infectivity were somewhat longer for man than for the monkey.

The existence of a more or less definitely limited period of infectivity of the blood in measles, strongly indicated by our experiments, would explain both the negative and the positive results of monkey inoculations reported by Josias[4] in 1898, would throw light on the reported failures of subsequent workers,[5] and would, therefore, make understandable the opinion almost universally held heretofore that the monkey is not susceptible to measles.

A NEW SPHYGMOMANOMETER

PERCIVAL NICHOLSON, M.D.
ARDMORE, PA.

Feeling the need for a simple, compact, accurate, and at the same time reasonably inexpensive, blood-pressure apparatus, I devised the following:

In describing this form of blood-pressure apparatus I do not claim to have evolved any new principles, but wish to state that it is an apparatus embodying features from several forms of sphygmomanometers now in use, with certain other alterations and modifications, making a practical and simple instrument. The reservoir principle is similar to that of the Stanton, while the use of the glass in its manufacture was adapted from Dr. Kercher's instrument. The pneumatic cuff is essentially that of Dr. Janeway. The use of the sliding scale and the box lid to support the instrument were also derived from the same source.

This instrument consists, as can readily be seen from the illustration, of a long glass tube of small bore continuous through a short U-shaped bend, with a large cylindrical glass reservoir partly filled with mercury, and into the upper end of which projects a short piece of glass tubing fused into it. To the upper end of this tube there is a short heavy rubber tube, attached in turn to a metal piece from which project, first, a metal stop-cock, second, a plain corrugated tube, and third, a projection carrying a needle-valve. Parallel to the long glass tube is a movable 300 mm. scale. To the upper end of the long glass tube is a steel stop-cock securely fastened to the glass. The glass portion is held in place by clamps and is easily removed. The metal parts are firmly secured to the lid, which, when opened, is held in an upright position. To the metal stop-cock *D* is

3. Hektoen, Ludvig: Experimental Measles, Jour. Infect. Dis., 1905, ii, 238.

4. Josias, Albert: Recherches expérimentales sur la transmissibilité de la rougeole aux animaux, Méd. moderne, 1898, ix, 153.

5. Grunbaum, A. S.: Some Experiments on Enterica, Scarlet Fever and Measles in the Chimpanzee; a Preliminary Communication, Brit. Med. Jour., April 9, 1904, p. 817. Jordan, Edwin O.: A Text-Book of General Bacteriology, second edition, 1911. Measles, p. 564

attached a rubber tube, along the course of which is a metal valve, and at the end is attached a metal pump. To the corrugated metal connection *C* is attached a long rubber tube which runs out to a pneumatic cuff. This cuff is 12 cm. wide and quite rigid, being made of stiff leather on the outside, and adjustable by means of straps. A narrower cuff will give too high readings in normal cases, and too low where the arm is large.

The operation of the instrument is very simple; all that is necessary is to turn the steel stop-cock on the end of the glass tube, push the pneumatic cuff on the patient's arm, and start to pump the air into the apparatus. The metal valve in the tube will sustain the pressure, but as a precaution, should it leak a little there is a metal stop-cock *D*, which can be shut off when the air-pressure is sufficient to obliterate the patient's pulse. Now the metal stop-cock *D* having been shut, the needle-valve *B* should be unscrewed slightly, and, the air-pressure being lowered, the mercury column in the long tube will be seen to fall slowly and evenly, the rate being regulated by the amount the needle-valve is unscrewed. The systolic pressure is then read on the mercury scale, when the patient's pulse first becomes palpable; or, if the auscultation method be employed, listening with ordinary binaural stethoscope over the ulnar or radial arteries just below the bend of the elbow, one will hear a loud, clear thump when the first cardiac beat comes through.

One reads the number of millimeters in the mercury column and gets the systolic pressure, which will be about 10 mm. higher than if palpated by the pulse at the wrist. In obtaining the diastolis pressure the mercury should be allowed to keep on falling, the physician observing the lowest greatest fluctuation, or, if the auscultation method is employed, continuing to listen over the artery until no sound are heard, and reading the mercury column at this point.

This explains in a few words the instrument and its operation, but there are some points about this apparatus in distinction to others which do not appear on the surface, and which are of great importance in the use and value of such an instrument.

Great care must be exercised in the selection of material with which the mercury comes in contact, as with most of the metals, as brass, in fact, all of the metals except platinum and steel, mercury will form a salt, thus in time creating a coating on the glass parts and greatly adding friction, eliminating the accuracy of the readings. So also in the case of soft rubber; mercury coming in contact with the sulphur used in its manufacture forms a black coating of sulphid of mercury.

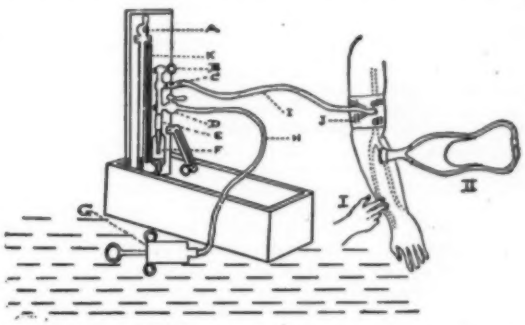
Steel can be utilized, as indeed was done in the case of the Stanton instrument, but this means a heavy, cumbersome, and at the same time an expensive instrument, as steel is a difficult metal to work. Of course, platinum is too expensive for practical use. Now in the instrument I have described, this difficulty is obviated by having the mercury entirely contained in glass, so that it cannot touch any of the metal parts, save the steel stop-cock, which is non-corrosive, or the soft rubber connection, as the glass projection in the reservoir acts in preventing the back flow of mercury. Another thing of great value is the use of a metal pump and metal valve, thus doing away with all rubber bulbs, or, what is practically the same, ribbed expansive rubber tubing, for both are a constant source of repair and renewal, due to blowouts and accidents, particularly exasperating if they should happen in a patient's house while taking a blood-pressure, as I have had occur when using bulb apparatus.

In addition, this apparatus has been made with a special view to compactness, being so proportioned that the instrument complete, inside of its wooden case, will fit in the ordinary 15-inch doctor's bag, and has the corners rounded to admit of its not injuring or catching the bag in which it is carried.

It is absolutely simple, being ready to use by raising the lid and turning one stop-cock.

There are no separate parts, screws or nuts to lose, no mercury to pour.

As the box is so arranged that it cannot be closed until the steel stop-cock on the end of the tube is shut, there can never be any loss of mercury. The entire glass portion is removable and capable of being cleaned. It is very accurate, using the full 300 mm. scale, whereas all U-tube instruments have to use a scale condensed one-half to allow for the depression of one column while



A new sphygmomanometer. *A*, steel stop-cock; *B*, needle-valve air-release; *C*, metal connection to cuff; *D*, stop-cock for tube to pump; *E*, rubber connection to mercury reservoir; *F*, glass reservoir; *G*, metal air pump; *H*, tube to pump; *I*, tube to cuff; *J*, pneumatic cuff; *K*, 300 mm. sliding scale.

the other is rising, and hence the graduations are only one-half as fine.

The dial instruments have even more condensed scales than the U-shaped instruments, and are open to the same objection.

Having an adjustable zero point one is always sure of accurate readings, whereas if a dial instrument (which, by the way, has to be standardized with a mercurial instrument) is not correct there is no way to determine its error, for one would have to test it with a mercurial instrument before finding it out. Their great advantage is compactness, but when one uses a wide rigid cuff, such as Von Recklinghausen proved to be the only accurate variety, the advantage of compactness is largely gone.

Then, too, having a large reservoir on one side and a small bore tube on the other the diastolic fluctuations in this form of apparatus, like the Stanton, are wide and easy to read, which result is not obtainable on any U-shaped tube.

Having a needle-valve release it has perfectly even and regular control of the air-pressure.

This instrument, being securely fixed in a wooden case, is not nearly so liable to injury as the delicate dial instruments; the glass portion not being cemented to the instrument is easily renewable should it become broken from undue violence.

Lastly, it is a simpler apparatus than most and can be manufactured at a more reasonable price.

10 West Lancaster Avenue.

Section Discussions

THE HEALING OF IRIDECTOMY WOUNDS AND ITS INFLUENCE ON GLAUCOMA

ADOLF ALT, M.D., ST. LOUIS

(*Concluded from page 110*)

ABSTRACT OF DISCUSSION

DR. HIRAM WOODS, Baltimore: None of us knows just how an iridectomy relieves glaucoma—just why a satisfactory coloboma does not relieve in one case when it does so in another, but such is the case. There is one class of cases of which I have seen three in the past two years, in which I should like to have some information from Dr. Alt. In a way they point out some of the influences of an iridectomy. I allude to the class of cases in which it is difficult to determine whether we have a primary or a secondary glaucoma to deal with. Maybe I can best illustrate it by giving some of the points from these three cases. One was in a woman of 65, who came to see me on account of floating bodies in the vitreous and peripheral striations. The vision was 20/30. A drop of euphthalmin was put into the eye for diagnostic purposes and in half an hour she had an acute glaucoma. Under eserin it subsided. The patient did not live in Baltimore, and in a few months went to see Dr. Risley in Philadelphia without my knowledge. He found the floating bodies. She did not tell him of her experience in Baltimore and he used homatropin, and she turned up a week later with a genuine glaucoma. She had floating specks in the vitreous and peripheral striations. The visual field was not contracted beyond 30 degrees. I performed an iridectomy; cataract ensued and the eye went out, with the typical symptoms. One would not think there was any connection between this trouble and the vitreous, but these observations prove it.

Another woman had a quiescent glaucoma and a uveitis with floating bodies. She was iridectomized, with a relapse, the development of an exudative chorioiditis and loss of the eye. The third case was in a woman aged 38, who came with a glaucoma, but with a contracted pupil. The tension was plus 2, and her field of vision was limited more than 40 degrees. The contraction was due to the eserin used by the physician who referred the patient. I performed an iridectomy and found pigmented spots on the lens capsule and a chorioiditis. The operation was not useful and her last state was worse than the first. On the other hand there was in Baltimore a patient who had a chorioiditis and a black cataract. He recovered after operation 20/30 vision. In the three cases there were floating bodies followed by a rapid exudative chorioiditis. In the other the vitreous was clear and the eye was healed, as far as we know, as far as the uveitis was concerned. What is there in an iridectomy to produce glaucoma? There was something which took place through the vascular connection between the iris circulation, which was Dr. Alt says something happens. What is it that leaves a glaucoma in a primary case, and can set up such destructive changes when the glaucoma is secondary, as in these cases?

DR. ADOLF ALT, St. Louis: I do not know exactly how to answer Dr. Woods' question. Of course the iridectomy has undoubtedly altered the circulatory apparatus in the eye, but why it should have produced an exudative chorioiditis I cannot see, unless there was, perhaps, already a chorioiditis when the iridectomy was made. Such eyes go to the bad anyway.

TREATMENT OF PURULENT OPHTHALMIA AND SIMPLE MEANS FOR ITS PREVENTION IN INFANTS

MARK D. STEVENSON, M.D., AKRON, O.

(*Concluded from page 99*)

ABSTRACT OF DISCUSSION

DR. G. C. SAVAGE, Nashville: Maceration of the epithelial cells is one of the things we have to look after. If pus is allowed to remain in contact with epithelial cells and the infection is severe they will suffer destruction. Therefore frequent flushings of the eye are absolutely essential; not every hour but every ten or fifteen minutes—just as often as pus forms. As to destruction of the epithelial cells, of course we can destroy the epithelium by awkward use of the flushing and by instruments, but this ought not to be done. I do not think most of us will advise our nurses to use instruments to open the babies' eyes for flushing. Nitrate of silver is destructive of epithelium, more or less, in whatever strength it is used. It is capable of destroying germs and at the same time the tissues. I have not used a solution of nitrate of silver in any strength in an eye for I don't know how long, but so long that memory runneth not to the contrary. I have used protargol from the day of its introduction. I have never used argyrol. I use protargol 40 gr. to the ounce, with frequent cleansing, and with that mixture which some seem to have forgotten, first given to the profession in California seventeen years ago by Dr. Scott of Cleveland, who has since passed away. I do not know of anything else that he left to the profession, but in my judgment the mixture outlined by Scott in 1894 is one worthy of consideration by everyone in cases with discharging pus. I do not know that many know what it is. I do know that such men as J. L. Thompson after the meeting found themselves so confident of the efficacy of that agent that they do not want nitrate of silver any more. That combination I have invariably used with great efficacy from that time down to the present day. It is hydrastin, tincture of opium, boracic acid and distilled water—hydrastin 2 gr., tr. opium 30 drops—he used a dram—boric acid 20 gr., distilled water 1 ounce. Eight or 10 drops are put into the sac every hour or two during the twenty-four hours, associated with applications of protargol; with that treatment I face these cases with confidence.

DR. ADOLF ALT, St. Louis: I agree with Dr. Savage in the fact that I have not used nitrate of silver for certainly not less than fifteen years—not since protargol came into use. But I do not agree with Dr. Savage in using it so strong. I believe in using a weaker solution and using it much oftener. If one could put the eye under a continuous bath of a weak solution of argyrol it would be better yet. I am satisfied with either. Argyrol in 25 per cent. solution very frequently—every hour or half hour—it seems to me gives just as good results as we had before with the use of nitrate of silver, and it is infinitely more agreeable. The washing out of the sac with any other remedy besides, I think, is useless. If the antiseptic or germicide is used frequently enough I think nothing else is needed.

DR. S. L. LEDBETTER, Birmingham, Ala.: I was a little bit loath to take the position that nitrate of silver was bad because of the result of a discussion at Atlantic City several years ago in which the consensus of opinion was that the nitrate of silver was probably the best of all. I have not used it for ten or fifteen years. I never lost an eye except when I used the nitrate of silver. One swallow doesn't make a summer, but the experience of one man combined with that of another does help. I have used irrigation always. I instruct the nurse to use it as often as she sees any beads between the lids, not to allow an accumulation of pus at any time. I believe if the pus is kept thoroughly washed away the bacillus is diluted to that extent that it does not become so virulent; and besides, I think the constant contact of pus with the cornea sometimes will produce an erosion, and wherever there is an erosion there will be a bad eye. I do not pull the lids apart, as a rule, with an elevator, but by a little pressure on the upper and lower lids they evert themselves. I instruct the nurse to evert them in that way, wash them off, and repeat this eversion and washing a number of times and in a little while the folds are clean. Keep them clean in that way and use the argyrol or protargol and your patient will do well. I do not know that I have had any difference in my experience in the use of these two drugs, because I haven't lost an eye since I quit using the nitrate of silver.

DR. WILLIAM E. BRIGGS, Sacramento, Cal.: It was a revelation to me to hear the paper of Dr. Stevenson, because we have as a profession regarded it as a sort of religion that we must cleanse the eye frequently, and that any natural drainage would not be sufficient to remove the pus. The germs carried

by the pus are the elements destroying the epithelium of the cornea. Now many of us have believed all our lives that if eyes are properly cared for from the beginning none of them will be lost. I was taught that and I advocated it. When I saw an infant with gonorrheal ophthalmia if I found the cornea clear and normal I would say the eye would be saved. For twenty years in my practice I have used the nitrate of silver in all cases. Besides the nitrate I have had the patient's eye cleansed with some cleansing solution, either boric acid or permanganate of potash—something as unirritating as possible—and at times have used weak solutions of bichlorid of mercury, etc.; but it has become a sort of a religion with me that the eye must be washed out, and I would want more men's experience that simple drainage would be sufficient before I would advocate it. When argyrol and protargol were advocated I began very religiously using these remedies, and I had very good results; but later, learning that they were not germicides and that their efficacy was doubted by many very good men I have gone back to the nitrate of silver, and, so far as I know, and I think that is correct, I have never lost an eye that came to me with a clear cornea. I have said that a great many times, but I am not going to say it any more, as my nephew, who is associated with me, had a case in a premature infant which, though I believe it was thoroughly and efficiently treated, lost both corneas. The fact that the infant was premature would account for this.

DR. F. T. ROGERS, Providence: I cannot forbear saying a word for a drug that has done more to save blindness in children than all the argyrol and protargol in the world; that is, nitrate of silver. From the day it was introduced it has had its adherents. When I hear a man say that he has used argyrol and protargol without losing an eye I feel that he probably hasn't treated many eyes, particularly among the lower classes of people. Twenty-five years ago was advocated the use of simple petrolatum in the lids and upward of 200 cases without the loss of an eye were reported. Of course by statistics we can prove anything. But I believe no hard and fast rule can be followed. In my hospital experience, which has been considerable, I have come to believe firmly in cleanliness, which we cannot get without lavage; one cannot wash out the lids by simply everting them; one has to elevate them, and many things can be used for this purpose. It is not necessary to have a specially devised instrument. A hair-pin sterilized by heat can be adapted to any case without danger to the cornea. When Dr. Savage speaks of hydrastin I am reminded of Dr. Oliver Wendell Holmes when speaking of the tenth dilution of sodium chlorid. He said, "Take a grain of salt, drop it in the Adriatic; then pluck the tallest pine and stir it twice, and as a dose give one drop." I should not like to see a patient of mine treated with hydrastin.

DR. SAMUEL Z. SHOPE, Harrisburg, Pa.: Dr. Stevenson quotes Dr. Edgar to the effect that the burden of the blame for blindness from ophthalmia neonatorum can be placed on the midwife. I investigated the question of ophthalmia neonatorum with reference to this point about five years ago, and my information corroborates that of Dr. Wood presented in his paper in the Section at St. Louis last year; his figure was 77 per cent. My own is 75 per cent. It is certainly striking if correct, that half the cases of obstetrics are attended by midwives and that 75 per cent. of blindness occurs in those cases. Dr. Stevenson points out the necessity of the use of a good prophylactic by statutory provision by one competent to use it. All the laws that have existed in the states up to this time have given the midwife the right to use the prophylactic. In New York they have put it into her hands, the state furnishing it. Last year I drafted a bill and fought it through the legislature which covers the use of prophylactics, the essential part of which is found in section 10 of that act.

We found physicians who refuse to use the Credé method of prophylaxis, and as Dr. Stevenson has pointed out, some physicians of large experience have never had a case of this sort, and this fact was a source of the greatest opposition to my work in Pennsylvania. They were not interested in the subject, and in order to overcome this I started in to educate the public, which Dr. Stevenson suggests. I wrote an unsigned article which could be comprehended by every one, leaving out all technical language, and had it published in about 900 newspapers of Pennsylvania, in many of them as an editorial. Every legislator received one or more of these papers. The next thing I did was to send to each physician a petition which should be signed by the leading laymen who elected the legislator in each district. If he was a Democrat, of course Democratic citizens were asked to sign the petition. The result was that the bill passed both houses unanimously and was signed by the governor. I am not here to tell about my own work, but if this small effort of mine would be the little bit of sulphur on the end of the stick that would start a fire that would extend over the prairies to the Pacific I should feel that my efforts had been of some value.

DR. HARRY W. WOODRUFF, Joliet, Ill.: Not all cases of ophthalmia require the same treatment. I do not think anybody would use solutions of nitrate of silver—at least strong solutions—in the moderate type of cases; but in cases in which the conjunctiva is greatly swollen and the discharge is profuse, certainly anything that will check that discharge and check it in as short a space of time as possible without doing damage to the corneal epithelium is the treatment to use. Now I am satisfied that strong solutions of nitrate of silver will do that. I will admit that its action on the corneal epithelium is destructive, but it should not be put on the cornea. If it is put on the swollen conjunctiva and the excess removed before the lid is replaced there is absolutely no danger to the corneal epithelium, and in forty-eight hours there will be a marked lessening in the discharge. I have not failed to find this. As to the use of argyrol—argyrol is absolutely harmless.

DR. W. ZENTMAYER, Philadelphia: I cannot help but think that Dr. Stevenson has exaggerated the danger of injury to the corneal epithelium from the use of solutions, but I do not think he has exaggerated the danger of such breaks. I myself and many others in Philadelphia have long since discarded the use of protargol and argyrol. We pin our faith to nitrate of silver, and the only patients with ophthalmia neonatorum due to the gonococcus who do badly are those whose vitality is low. Dr. B. Alexander Randall in Philadelphia pointed out that the only cases in which there was danger of the loss of the cornea are those in which the child is marasmic or born before term, and that has been my personal experience. While it is possible that argyrol is beneficial, I believe it is beneficial only because it washes away the discharge. I certainly would not want to treat a patient without the nitrate of silver.

DR. MITTENDORF, New York: I agree with the last speaker that there are cases which will go along no matter what we do, and that it depends on the condition of the patient. We have seen these cases fail with the best of care in children who have been marasmic; we have seen them in children after measles in which both corneas will slough. But there is another thing in regard to the treatment that I would emphasize, and that is that instruments to go into the eye should not be entrusted to the hands of even an experienced nurse. I have been using the petrolatum treatment, especially mixed with boric acid, a great deal in these cases. I think a layer of petrolatum between the lids and on the ball is a great preventive and a preservative of the cornea. But the difficulty has been to introduce this petrolatum in the proper way. I have had hard rubber applicators and instructed the nurse to use them carefully, and yet every now and then we would get a corneal ulcer from this cause. I have now adopted the plan of using the petrolatum from one of the little collapsible tubes, and have the eye opened and closed a couple of times, and a layer of petrolatum will spread over the eyeball and protect it to a certain extent. In regard to the use of silver, I have found argyrol the least irritating, and it is especially desirable because it can be used according to the severity of the case in different strengths. In the majority of cases it must be used in 30 or 40 per cent.

DR. D. W. GREENE, Dayton, O.: There are other features in the treatment than the medical treatment. I have not heard any one speak of this point, and I am forcibly reminded of it by a case I saw some time ago which had passed through the hands of Walter Parker of Ann Arbor. A child had been born in the hospital. It developed ophthalmia neonatorum. A microscopic examination had been made and no gonococci

found. It was treated with zinc solution and recovered so that the child was discharged from the dispensary service. The family afterward removed to Dayton. When the child was four weeks old it developed another inflammation of the eyes and came under my observation, and a microscopic examination revealed the presence of the gonococcus. This second inflammation had lasted ten days and there was sloughing of the cornea and both eyes were lost. The father, who was of little account, immediately began to notify the authorities at Ann Arbor that the child had been neglected, that the disease was present at its birth, and that he would hold them responsible for it. Fortunately I was able to assure the people at Ann Arbor that we had been able to find the gonococcus—not only found it, but cultivated it. This is a point not in relation to treatment, but it shows that cases that appear to be simply catarrhal at first can have grafted on to them a gonorrheal infection.

DR. EDGAR S. THOMPSON, New York: It seems to me we must make a decided distinction in the treatment of ophthalmia between the neonatorum type and what might be called the adult type; this latter applies to anything older than six weeks or two months. The clinical course of the case in later life is totally different. The prognosis in the neonatorum type depends on how early we get them. I believe that in every case of the neonatorum type with proper treatment the eye would be saved unless, as Dr. Zentmayer says, the child is marasmic. We have a large service at the Manhattan Eye and Ear Infirmary and we never lose an eye if the patient comes in time and the general resistance and health are good. As to the question of irrigations, it seems to me there are two very distinct actions of the secretions retained in the eye. One is the eroding action on the cornea and the other is the action of the gonococcus itself. In other words our experience is that the gonococcus multiplies much more rapidly in its own secretion. If allowed to remain a half hour it would be much more plentiful, and we have therefore adopted the plan of cleansing the eye every fifteen minutes day and night. I am sure where we relax this regime the case runs much longer. In regard to irrigating solutions, we have used a large number, but have always come back to boric acid. The value of irrigations is in the mechanical effect of removing the secretion. I do not think we gain much from so-called germicides. The pus accumulates down in the cul-de-sac and the nurses are instructed to manipulate the lids to get the secretion out, but to keep away from the cornea. I do not think we can treat one of these cases without properly draining the sac. With regard to the action of germicides, I think Hoops of Boston demonstrated that argyrol is not *per se* a germicide in the test-tube, but in the eye I have the impression that it does check secretion. We use it as a routine three or four times a day and I think the secretion is checked much more rapidly. We do not feel safe to depend on it absolutely, however, because I do not think it has any value at all in removing papular hypertrophy of the conjunctiva. I think it should be used here, not in strong solution for its germicidal action, but for the astringent effect of the silver.

DR. H. WOODS, Baltimore: I should like to defend nitrate of silver, but it does not need defense. It seems to me absolutely going back on the pathology and the experience of years to say, that nitrate of silver is not the sheet-anchor of ophthalmia as truly as atropin in iritis. Dr. Alt has made some statements to me with regard to argyrol and protargol that are extremely interesting. I would ask unanimous consent for him to present these statements.

DR. ADOLF ALT, St. Louis: When advocating argyrol I did not mean to say that nitrate of silver is not good. But I am aware of the dangers of the nitrate as well as of the shortcomings of argyrol. What Dr. Woods refers to is this. We do not know how the nitrate or the argyrol act. Schneider has made some experiments to find out what the action is on the conjunctiva, and he believes that the leukocytes are acted on by the irritant action of the solution and then produce a body which he calls leukein, and that is the active principle which kills the germs. The nitrate of silver is such an irritant. He has used sulphate of zinc in the same way, and they produce a new body, the leukein, from the leukocytes. Although some say that argyrol is innocent and does no harm, and in the test-tube it is worth nothing, yet in conjunction with the juices of the conjunctiva and the eye-ball it certainly has an effect and a very decided one.

DR. FLAVEL B. TIFFANY, Kansas City: I simply want to correct an impression that may have gone out from the statement of Dr. Rogers that more eyes are saved by nitrate of silver than by any other treatment. On the other hand, more eyes have been lost by the nitrate of silver than by any other treatment. Years ago when we depended on the nitrate we cured a certain per cent.—40 or 50. Since we have used protargol and argyrol we have cured a much larger percentage; Dr. Savage would say 75 per cent. or more. Dr. Stanley of Boston will tell you that he has cured 100 per cent. in nine years by the use of argyrol exclusively, and he has many cases. That was his report years ago.

DR. SHERMAN VOORHEES, Elmira, N. Y.: I should like to ask whether Dr. Stevenson has had experience with the Neisser serum. I have tried it out in some cases with no result; but recently a physician came to my office who had been treating patients with gonorrhea and had infected both his eyes. The cornea in one eye had half become necrotic and in the opposite eye there was considerable necrosis in the upper edge. I used in his case the nitrate twice a day with 50 per cent. argyrol about once in two hours in connection with irrigation sufficient to keep the pus out of the eye, no matter how often, night and day, whether fifteen minutes or ten minutes. I gave this physician 50 million every fourth day of Neisser serum. It seemed to me from all the cases of ophthalmia that I have treated that I should have lost this case. I lost one eye in this physician. But I believe also that I find more cases of ophthalmia neonatorum since physicians have used as a prophylactic argyrol than formerly when they used nitrate of silver. I believe this is explained by the fact that it is not so strongly germicidal, and that they depend on one application; but it is weaker and in using it as a prophylactic it should be used more than once as against the nitrate according to the Credé method. I find that physicians carry a 40 or 50 per cent. solution of argyrol and the application is made but once.

DR. JAMES W. MAY, Kansas City, Kan.: I should like to have Dr. Parke Lewis of Buffalo answer a question, since we have had discussion as to the value of the nitrate and argyrol, as to what effect it will have on medical legislation proposed in various states and in the enforcement of legislation already enacted in which the Credé method is required.

DR. F. PARK LEWIS, Buffalo: I disclaim the credit of being an authority on ophthalmia neonatorum. What I have been able to do has been by coordinating the efforts of my colleagues in preventing blindness. In answer to Dr. May's question, we must distinguish very sharply between prophylaxis and treatment. That which is suitable for prophylaxis is not necessarily suitable for treatment. What we have done we have done as an expression of the sentiment of the profession rather than on account of our individual views. In 1906 before making any suggestion whatever we got the opinions of at least 200 ophthalmologists and as many obstetricians as to the most desirable prophylactic. The opinion found was that there was none so effective in judicious hands as the 2 per cent. Credé solution, which means one drop of a 2 per cent. solution dropped from a glass rod on the cornea. It was feared, however, that in the hands of untrained midwives, and indeed in the hands of untrained physicians—because the average physician is not skilled in the treatment of the eyes—that a 2 per cent. solution would not be safe, and therefore it has been generally advised that the 1 per cent. solution be used as a prophylactic for all official preparations sent out by the states. The question of treatment, however, is another matter. It is not a matter with which the committee has concerned itself; but we must concern ourselves with it as ophthalmologists, because it has been found that the ordinary physician is by no means qualified to treat ophthalmia neonatorum. Again and again it is asked how frequently it should be used as a prophylactic, and how strong. From many sources have come reports of damage from its injudicious use; but that has very generally been prevented by the supplementary use of argyrol.

DR. A. E. BULSON, JR., Fort Wayne, Ind.: Before closing the discussion I should like to say that I was glad that Dr. Lewis made this statement concerning the consensus of opinion of American ophthalmologists concerning the use of silver nitrate. I think it would be a great pity if this Section should put its stamp of approval on any of the newer silver salts and its disapproval on the old and well-tried nitrate of silver in the treatment of ophthalmia neonatorum. We must take into consideration the fact that we are dealing with a desperate disease, and it is our purpose and it should be our duty to use every means to prevent the destruction of eye-balls. Probably those who have had the largest experience in the treatment of ophthalmia neonatorum—I may say the majority of these—would say emphatically that they would place the most dependence on the nitrate of silver in the treatment of this disease; secondly, that with the nitrate of silver they would combine irrigation. Now in irrigating the eye it is not necessary to produce trauma. I am quite in sympathy with what Dr. Stevenson says concerning the possibility of having trauma if due care is not observed, but I do not believe that with reasonable care the ordinary nurse or the ordinary physician is going to be guilty of producing trauma of the cornea by irrigation, and without doubt irrigation is absolutely necessary in the treatment of this disease.

DR. MARK D. STEVENSON, Akron, O.: I am very grateful to the Section for this free discussion. Dr. Woods again reminded me to again call the attention of the Section to the use of holocain and not cocain. In the second page of my article I refer to the article which Dr. Alt so well described of Schneider concerning the formation of these leukeins, but there have been so many claims made for argyrol that I have not been able to substantiate. So far as argyrol being harmless is concerned, some of the most marked cases of argyria have occurred from its prolonged use. Weak solutions of silver nitrate do not do this. The weak solutions of silver which Dr. Alt refers to are used quite extensively, I think, in the New York hospitals. Personally I am inclined to agree with Dr. Jackson, who advised against the use of silver more than once a day, and I have not advocated it more than once a day. Dr. Woodruff, I learned, not from his discussion, pretended to prove that strong solutions of nitrate of silver, 10 per cent., if I am not mistaken, are best. Of course he could not use that with hooks and he must protect the cornea. My effort was to have every part of the conjunctival sac in contact with the silver solution, and in proper hands it can be done very safely. With regard to flushing, which seems to constitute the only difference of opinion, this was also my sheet-anchor in the treatment of ophthalmia neonatorum until the thought of free drainage, as in any other abscess, occurred to me. Take an abscess anywhere else the size of the eye and with an opening as large as that of the eye and you would have perfect drainage. It is true you may have a little pus collect in the fornices, but by opening the lids this rolls out. It is necessary, however, that the lids do not come together. Reference has been made to the importance of the condition of the patient, with which I agree. As Dr. Zentmayer and Dr. Thompson have pointed out, the patients that give us the most difficulty are the marasmic, the under-fed, the under-age type of patients. I think that is one of the particular reasons why flushing with its constant worrying of the little infant should be avoided. I recollect once in my former practice that I had it done every fifteen minutes to half an hour. I do not now see how an infant could live through it. And besides, we cannot have two trained nurses for many of these poor patients. Possibly you could attain that in the hospital and for the wealthy, but the poor mother and the ignorant mother can be very quickly trained to see that the lids are separated and a very little oil placed on the margin of the lids, thus securing perfect drainage. I have treated quite a number of patients without one drop of irrigation and never before had such results. My number of cases is limited, but before I stopped irrigation I was occasionally getting ulcers when they came to me with clear corneas, and that suggested to me that it was the slight trauma.

DR. S. L. LEDBETTER, Birmingham: How many eyes did you lose when you did thorough and complete irrigation and used argyrol?

DR. STEVENSON: I was so early disgusted with argyrol in other conditions that I couldn't compare it with silver nitrate. I used it, to my knowledge, in practically no cases. I do not know that I ever did treat any with argyrol.

THE SIGNIFICANCE OF RETINAL HEMORRHAGE

F. T. ROGERS, M. D., PROVIDENCE, R. I.

(*Concluded from page 102*)

ABSTRACT OF DISCUSSION

DR. W. H. ROBERTS, Pasadena, Cal.: As each case of retinal hemorrhage comes under our care, we cannot at once catalogue it as regards prognosis or life expectancy, as each case will, to a certain extent, be a law unto itself. Each patient with this trouble deserves our most careful diagnosis and thorough-going treatment, and the results as regards life will often be surprising.

In the first year of the practice of my specialty Mr. T. G., aged 62, consulted me. His retina showed numerous scars from hemorrhages. His urine showed that he was having an acute exacerbation of a chronic parenchymatous nephritis. I gave a very unfavorable prognosis, saying that he would probably live less than two years. He was referred to a good general practitioner, who looked after his diet and mode of life, and the improvement in the patient's condition was remarkable. He lived a few months short of ten years.

Shortly after this I saw Mrs. A. G., aged 56, whose retina showed old scars from hemorrhages; whose vision in one eye was down to counting fingers at 3 feet, and whose urine was loaded with albumin. She lived nearly seven years after having been placed on a proper regime.

I have had under constant observation for nearly ten years a woman with a tuberculous history, blind in one eye from retinal hemorrhages, and subsequent retinal detachment—later retinal hemorrhages and retinitis proliferans in the other eye—who is a model patient, whose physical and mental condition is excellent, and who gives me every reason to believe she will live for years to come.

Mr. G. L. W. lived for eleven years after coming under observation for retinal hemorrhages from arteriosclerosis. Mrs. E. D. W. is in about the same condition to-day as when first seen six years ago, when her retina showed old scars, and fresh hemorrhages with albuminuria. Mr. H. B., aged 77, is still living, over five years after he came under my care for diabetic retinitis. These five cases from my records are reported to encourage us, first, to put forth every effort to help the unfortunate victims whose retinas show evidence of serious trouble there and elsewhere; second, not to make our prognoses too gloomy; and third, to consider each case separately without relation to any other, and to institute a careful line of treatment, with correct mode of life.

DR. MELVILLE BLACK, Denver: I presume that Dr. Rogers would not desire that we give such an unfavorable prognosis as an average of two years of life in a patient having a retinal hemorrhage. My experience has been that very much more can be done in this day and time, with our advantages in hygiene, with our advancement in pathology of these conditions, than when the old prognosis and methods used to obtain. I can recall many patients who have been living from ten to fifteen years and who are seemingly well to-day who have had retinal hemorrhages. I remember some others who are beneath the sod, but they are few, and I believe that now with our improved method of handling these cases we need not necessarily give the patient such an unfavorable prognosis. I certainly feel that it would be inadvisable to give a patient a prognosis of any length of time or any expectancy on his life. Sometimes they live twenty years and fool us, and those I see around me who have grown gray in the practice of ophthalmology I feel sure will be first to second the proposition that we should be very guarded in giving a time expectancy on life to our patients with retinal hemorrhage.

DR. MITTENDORF, New York: I hope that Dr. Rogers will not be angry with me if I do not quite agree with all he has

said, because I have seen quite a number of cases of retinal hemorrhage at the age of puberty in young girls, and also in boys, that have not terminated as fatally as Dr. Rogers thinks they are apt to do. Of course these cases occurred long before the taking of blood-pressures was done. Of three patients, one consulted another doctor, the other was a young lady from West Virginia, whom I saw, and the other was a patient whom I see almost every day, who had these hemorrhages twenty or thirty years ago. Lately we have been taking blood-pressures where there is hemorrhage, and we have come to the conclusion that blood-pressure has little to do with these hemorrhages. I have found patients with hemorrhage in whom the blood-pressure was 135, and in those in whom the blood-pressure was 225 or more. The prospects for the future, I think, depend on the diseases that caused it—irregularity of the action of the heart, or rheumatism, or an atheromatous condition, naturally have their bearing, but a simple retinal hemorrhage I do not look on as a very serious affair.

DR. J. B. TIFFANY, Kansas City, Mo.: Like Dr. Mittendorf, in my experience in the last thirty years I have had quite a number of cases of retinal hemorrhage from what we might call vicarious menstruation. Most of the patients have improved under treatment; none has died.

DR. H. WOODS, Baltimore: Dr. Howard Kelly told me recently that he had never seen a case of vicarious menstruation and did not believe that such a thing existed. In the book published by Kelly and Noble it is stated that it is very doubtful if the so-called cases of vicarious menstruation will bear any investigation whatever; that in cases of menstrual disturbance—amenorrhea or dysmenorrhea—there is some underlying cause which can be ascertained. In my own paper which I shall read here later I shall have something more to say on the subject; but I think in the discussion of the significance of hemorrhages, either in the vitreous or elsewhere, we want to be careful how we put down as etiologic influences concomitant conditions without going back to the ultimate cause. For instance, amenorrhea associated with hemorrhage could not be attributed to vicarious menstruation until the cause of the amenorrhea had been discovered, and if it is not local, one must go back to the blood-examination or to the whole subject of the patient's metabolism before one can conclude just what it is.

DR. BRYAN, Omaha: The discussion has been confined to hemorrhagic retinitis. The only thing to which I wish to call attention is with reference to some cases of hemorrhagic retinitis following our common disease, grip. Several years ago we had an epidemic of this disease in our own city in which there were quite a number of cases of retinitis following this disease, and a number of these patients had hemorrhage. Most of the patients who came under my care were not very old. These went on to recovery and I have never heard anything about any serious trouble following. Then in the course of my long experience I have seen a great many cases of hemorrhagic retinitis, most of them in people past middle life, but, as the essayist says, some of them occurred early, and a few of these cases in my own practice recur to me. One was in my own brother, who at the age of about 35 had hemorrhagic retinitis in both eyes. He entirely recovered. That was eighteen years ago, and he has never had a recurrence. All of us, I think, can furnish cases in which the results have not been bad as far as life is concerned. Of course we can also report a great many cases in which death followed in a short time, but my experience is that death follows much sooner in patients past middle life than when it occurs before that period.

DR. WILLIAM ZENTMAYER, Philadelphia: I wish to place on record the statement of Dr. James Tyson, one of our highest authorities on renal diseases, made at the College of Physicians on the subject of albuminuric retinitis. He stated that he was quite convinced that the prognosis held by ophthalmologists was too grave entirely; that patients lived a great deal longer than an average of two years, and he thought it ought to be corrected. My own experience is not very large, but on the whole I would think that the prognosis of hemorrhagic retinitis, albuminuric, is very grave; that the majority of patients do not live much longer than two years. I have seen patients who lived longer. One, a foreman in a large printing establishment, had acute nephritis and numerous hemorrhages, and eleven years ago was under the care of Dr. Hare. He is now living. He never had a subsequent attack and is apparently in the best of health. Yet once I plumed myself in giving a prognosis in a man who had no occupation. I told his friend he would probably die in a short time. That man's physician accosted me on the street six months later and said, "Doctor, your patient died within six weeks of the time I brought him to the hospital." So that every case, as Dr. Rogers says, is a law unto itself.

DR. F. T. ROGERS, Providence: It is not often that an essayist is honored by such universal disagreement, and yet I take exception to one or two criticisms of the paper. Dr. Roberts states that statistics cannot prove anything, implying that my statistics have been looked at from the standpoint that the disease has serious import, and then he reports five cases of exactly the opposite thing. If a report of twenty-five cases in which 50 per cent. of the patients die in three years prove nothing, neither do five cases in which the patients live ten years prove anything. I wish to say that the conclusion I sought to draw was that the prognosis varies with the type of the disease. Conclusions drawn from albuminuric cases differ from those drawn from simple retinitis. The bad prognosis need not be given the patient, but to the friends, the family and the physician. I think it is better to be on the safe side. When I find out of seventeen cases of simple retinal apoplexy, six of them ranging over a period of ten years, six one year, four two years and one five years—that of the patients but ten were in their usual health, and the rest were either dead or in impaired health; and in hemorrhagic retinitis eleven out of twenty were in good health after ten years, and of five patients none was alive after ten years, and of ten patients with chorioretinitis none was alive after ten years, I feel that a menace hangs over such patients. It is not necessary to inflict our views on our patients; but if we realize that the condition is serious, yet do not know enough to treat it ourselves, we should request a careful examination and advice. If I have made this point clear, then I shall feel that I have not wasted my efforts in writing this paper.

Therapeutics

AMEBIC DYSENTERY

Another of the diseases which has recently been proved to occur much more frequently than was generally realized, among individuals living in all parts of the country, is that known as amebic dysentery. This has scarcely been recognized as an independent disease for more than a quarter of a century.

In 1875, Loesch, in St. Petersburg, identified the ameba in the stools passed by a patient suffering from dysentery. Eleven years later, Kartulis observed 150 cases in Egypt, and found the ameba in all. Osler found the ameba in 1890, and this was the first time that it had been observed in the United States.

It is now well recognized that certain cases of dysentery are definitely caused by the *Amœba dysenterica*. Schaudinn has published one of the most elaborate studies of this ameba which he distinguishes as *Entamœba histolytica*, and believes that it should be distinguished from the *Entamœba coli*, which does not produce dysentery, although there is some difference of opinion among different observers as to whether there is a pathogenic and an innocuous ameba.

The ameba is best obtained by scraping the rectal ulcers and examining microscopically the scrapings on a warm stage. The motility of the ameba is an important point in its distinction, and this ceases at a temperature

of 70° F. If this method of obtaining a specimen is impracticable, the watery discharges, and especially the bloody mucus may be examined, but in many cases it is found with great difficulty under these conditions.

Formerly it was generally believed that amebic dysentery occurred only in the tropics, but the observations of recent years show that it is not by any means limited to tropical countries, but may be found in various parts of the temperate zone. It has been suggested that these cases occurring in temperate zones were due to infection brought from the tropics, especially by fruit which is eaten raw, like bananas, but that infection through bananas brought from the tropics does occur has not been scientifically demonstrated. It is more probable that the ameba maintains its vitality, although less energetically in the temperate zone than in the tropics, and that the cases of infection in the temperate zone occur through the drinking of water, and especially of water from wells, which have been contaminated by surface drainage.

The disease affects adults almost exclusively, cases among children being exceedingly rare. It also affects males more frequently than females. A common complication of the disease, especially in males, is abscess of the liver.

The disease may commence almost insidiously with a not excessive number of bowel evacuations each day, without very great pain and without the presence of very much blood or mucus, but a striking characteristic of the disease is its long duration. Patients may suffer from it not severely and may seem to improve, but they almost certainly relapse. Cases may last for months or even years, and be accompanied by extreme emaciation. There is no way of determining exactly the existence of this disease except by finding the motile ameba either in the stools or in scrapings from local lesions in the rectum.

The treatment of this disease has been the subject of extensive discussion and of extreme difference of opinion. British surgeons practicing in the tropics, and especially in India, have praised most optimistically the use of large doses of ipecac, and have praised it as a specific second only in importance to the value of quinin in malarial infection. Some observers in other countries and even in the United States have apparently verified the high esteem in which ipecac is held by British surgeons, but, on the other hand, many observers have condemned this drug as useless, or even injurious. It certainly would be exceedingly strange if so many men of wide experience should be mistaken in believing ipecac of value in the treatment of this disease. The fact seems to be that ipecac is useful in amebic dysentery, but less useful in other varieties of dysentery.

Ipecac is used in various ways, the patient, during its administration, of course, remaining absolutely quiet in bed. Some recommend preceding the administration of ipecac by a hypodermatic injection of morphin, given about half an hour before the ipecac. Some advise giving the ipecac in pills or capsules covered with salol. The usual dose is from 3 to 4 grams (from 45 to 60 grains). This should be given at night, and the dose, diminished daily by 0.30 gram (5 grains), should be repeated each evening until the dose has been reduced to 0.60 gram (10 grains). This dose of 0.60 gram (10 grains) may then be continued for two weeks. This method has been found very satisfactory by Dr. Sidney K. Simon, of New Orleans, who described his method of treatment in THE JOURNAL, Nov. 6, 1909, page 1526.

In just what way the ipecac produces its beneficial effect has not been determined, but it seems probable that either it, or some product resulting from its decomposition, inhibits the development of the ameba.

The general treatment of amebic dysentery is the same as that of bacillary dysentery, given in THE JOURNAL last week.

It is sometimes advisable to administer a laxative with the idea of removing the amebas from the intestinal canal. Castor oil has been recommended for this, but probably one of the salines, either the sulphate of magnesium or sulphate of sodium, is preferable. A good combination is the following:

℞	Gm. or c.c.		
Magnesii sulphatis	25		℥i
Acidi sulphurici aromatici	10	or	fl.℥iiss
Syrupi zingiberis	50		fl.℥ii
Aquæ ad	100		ad fl.℥iv

M. et Sig.: One teaspoonful in water every four hours.

This will have a laxative effect with a secondary astringent effect, due to the sulphuric acid.

Bismuth subcarbonate may be administered in large doses, but the value of this is often problematical. However, if the inflammation is in the cecum or has migrated into the ileum, the bismuth is probably of value. Bismuth, however, must not be too long continued, as it tends to form scybalous masses and cause more irritation and more inflammation.

If the movements are very frequent, or there is much pain, sulphate of morphin may be administered subcutaneously, or suppositories containing extract of opium may be used, as in the following prescription:

℞	Gm. or c.c.		
Extracti opii	60		gr.x
Olei theobromatis	20	or	3v

Fac suppositoria 20.

Sig.—Use one suppository every four hours, if needed.

But far more important than these internal laxatives, astringents, and sedatives is the local treatment. This consists of enemata given with the idea of washing out the rectum and irrigating and cleansing the entire colon. The use of a simple salt solution, distinctly stronger than physiologic saline (which is about 0.7 per cent.) is recommended by many for washing out the rectum and colon, and is believed to have some destructive effect on the amebas. This destructive action is greatly increased if the enema is administered at the low temperature of 70° F., at which temperature the ameba finds it difficult to continue life. Water of this temperature may be used in the rectum, but should not be used in the colon.

Sulphate of quinin is believed by many to be specific in its destructive action on the ameba, and is much used for irrigating the rectum and colon. It should be used in a 1 to 5,000 to 1 to 1,000 solution. Cures are believed to have been effected by such irrigations in many cases.

If, in spite of the remedies which have been enumerated, the case still continues rebellious, resort to surgical interference may be deemed advisable, and appendicostomy may be performed, and irrigation of the colon by means of the insertion of an irrigation tube through the appendix may be practiced. This was referred to in THE JOURNAL, Sept. 3, 1910, page 858.

Great care and patience are required in the treatment of this disease, and the treatment should be long continued, and after the patient is apparently cured, he should be kept under observation for months in order that, if a relapse occurs treatment may be promptly instituted.

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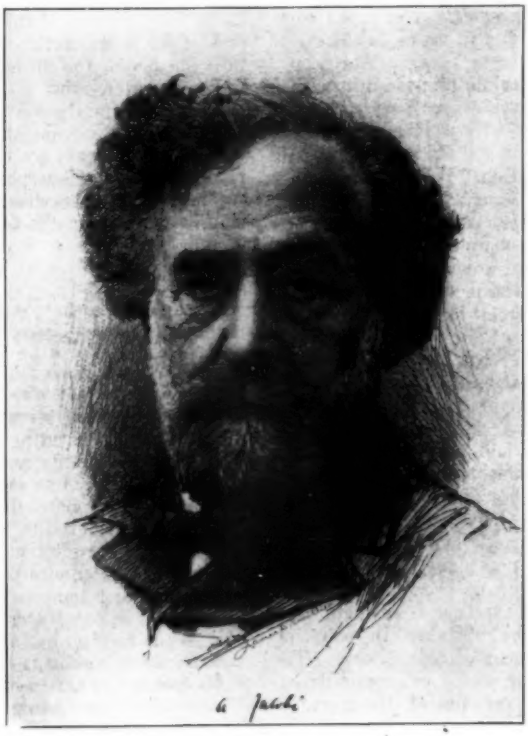
[*For other information see second page following reading matter*]

SATURDAY, JULY 8, 1911

PRESIDENT-ELECT JACOBI

A mutual honor in the highest sense of the term was the election at Los Angeles of Dr. Abraham Jacobi to the presidency of the Association. Few, if indeed any, men in the American medical world to-day can look back on as active a life as that of Jacobi. As a teacher, practitioner, hospital physician and worker in medical organizations he has been a leader for half a century.

His contributions to medical literature, which are legion and internationally well known, his brilliant attainments as a practitioner, his organizing and administrative talents, and last, but not least, his tremendous activity as a public-spirited citizen of his foster-land betoken a career unique in our annals. Now, at the age of eighty-one, is conferred on him the highest honor which the medical profession in America can bestow on any of its members.



PRESIDENT-ELECT ABRAHAM JACOBI

Born at Hartum bei Minden (Westphalia) May 6, 1830, he belongs to a generation which produced more great men than perhaps any single generation before in European history, that namely which created the revolution of '48. In appreciation of his idealism, Jacobi, like so many others, in the years 1851-53 was imprisoned again and again, but when finally liberated he, like Carl Schurz, Siegel and Krackowizer, sailed for America, henceforward the center of his hopes for the future, landing in this country as an unknown and all but penniless exile.

He had taken his M.D. degree at Bonn with a dissertation "De vita rerum naturalium" before his imprisonment in 1851, and at once entered on practice as a physician in New York City, soon becoming well known in his profession. In 1857 he became a lecturer on infantile pathology in the College of Physicians and Surgeons, and in 1860 he was called on by the New York Medical College to occupy the first chair established for the diseases of children in America. In 1870 he resigned to become clinical professor of the same branch in the College of Physicians and Surgeons, occupying this chair until 1902, when he was made emeritus professor. In 1895 he was offered the chair of pediatrics in the University of Berlin, but declined the honor, feeling that the ties binding him to America were too strong.

To review in detail the career of Abraham Jacobi, however, would be to touch on every important phase of progress of American medicine during the last half century. We shall here point only to the facts that he has done more than any other man to place pediatrics on a firm and scientific basis by his epoch-making conception of infant-feeding which he calls "the most important and momentous question of all times and before all nations," and that he was the first in this country to inaugurate systematic and special clinics for the diseases of children.

In medical societies Dr. Jacobi has been active and prominent. He has been president of the New York Obstetrical Society, the Pathological Society, the county society, the state society, the New York Academy of Medicine, the American Pediatric Society, the Association of American Physicians, the Deutsche medizinische Gesellschaft of New York and the American Climatological Association. He was a prime mover in the founding of the section on pediatrics of the American Medical Association in 1880, of the section on pediatrics in the New York Academy of Medicine and of the American Pediatric Society. He is an honorary member of innumerable societies in this country and abroad. Few American medical men have been so prominent at international meetings as Dr. Jacobi.

His life-long friend, and comrade of 1848, Carl Schurz, once hailed him as "the personification of scientific conscience and the personification of civic conscience." This saying is sufficient justification, if any were needed, for the choice of the Association.

THE PUBLIC AND THE PUBLIC HEALTH

The ready response of the public to appeals for better health conditions is a most surprising and gratifying result of the rapidly altering state of public opinion on health matters. The people are ready for any reforms. Recent examples of this fact will readily occur to those who have been watching public health progress. One of these is the recent remarkable crystallization of public opinion on the common drinking-cup; another is the equally rapid progress of the campaign against insect carriers of disease and especially of flies. These pests have been causing annoyance and disgust to all cleanly-minded people, as well as distributing diseases, for centuries. If anyone had predicted ten years ago that great American newspapers and civic organizations would inaugurate a definite campaign against flies, he would have been regarded as hopelessly visionary. Yet the American Civic Association has established a "Fly-Fighting Committee," has reprinted an article on "The House-Fly as a Carrier of Disease" from the *Annals of the American Academy of Political and Social Science*, has distributed instructions on how to conduct an anti-fly campaign, and has sent out a special bulletin entitled "Kill Flies and Save Lives." It is surely a promising indication when so learned a body as the American Academy of Political and Social Science considers an article on the house-fly worthy of a place in its periodical.

Accompanying the literature sent out by the Fly-Fighting Committee of the American Civic Association is a request that all persons going to summer resorts write the proprietors of summer resort hotels, making definite inquiries as to health conditions at these places. The danger of summer resorts as centers of infection is well recognized. Many a local commissioner of health has earnestly and successfully striven to eradicate typhoid fever in his city only to find each fall an outbreak of disease following the return of summer resorters, who had become infected during their stay in the country by dirty water or milk, unwashed vegetables, flies or other means by which typhoid is distributed. The committee asks all those contemplating a trip to summer resorts to write a letter similar to the following to all summer resort proprietors.

Before making plans for the summer vacation I wish to be assured that the sanitary conditions of the resort which I select are such as to make my stay permanently beneficial as well as pleasant for the time being. Will you, therefore, kindly advise me what are your sources of water-supply and your methods of sewage and garbage disposal? I prefer to spend my vacation where I need have no fear of malaria from mosquitoes, or typhoid fever from flies and polluted water-supply. Is your drinking-water protected from contamination by your own sewage or that of others, and are your guests protected from flies and mosquitoes, not only by screens for doors and windows, but by precautions taken to prevent the breeding of these insect pests in your neighborhood?

You are doubtless well informed as to the dangers of health arising from neglect of the sanitary precautions on which physicians are now laying much stress; nevertheless, I take the liberty of sending you some recent literature on the subject, which may give you suggestions for the further improvement of local conditions; for I believe you will agree with me that whatever raises the reputation of a resort for healthfulness, raises the revenues of its proprietor.

More and more is the campaign for better health conditions becoming one of economics rather than of sentiment. As soon as hotel and boarding-house keepers are convinced that cleanliness is profitable and that filth will diminish their receipts and increase their expenses, perfect sanitary conditions in summer resorts will become as much a business asset as are pine woods, beautiful lakes, cool breezes and low temperature.

ACUTE THYROIDITIS

It is only within comparatively recent years that we have come into possession of any definite knowledge of the physiology of the thyroid gland, and this has been attained principally through observation of diseased conditions or aberrant function and animal experimentation. That the gland has an internal secretion and that this plays a most important part in the animal economy has been demonstrated beyond peradventure of doubt and is universally admitted.

There is, however, still room for additions to our knowledge in this field, as well as in that of the diseases of the thyroid gland. In rare instances the gland is congenitally wanting. Abnormal configuration or size is less common. Supernumerary glands are at times present. Varying degrees and forms of atrophy or degeneration take place, as a rule in the later periods of life. Goiter is the most common pathologic deviation, and it may be structural (hyperplastic or neoplastic) or vascular (circulatory). Transitory hyperemia of the thyroid gland is frequently observed in women, especially at puberty and during menstruation and pregnancy. Inflammation of the thyroid gland appears to be a rare disorder, although in minor grades it may be a more common accompaniment of infectious processes than the clinicopathologic evidence would indicate. Moreover, it is not impossible that some of the degenerative or atrophic conditions of the gland resulting in myxedema, adiposis and allied affections may have such an origin.

An interesting discussion of the subject, based on a personal experience with three cases and an extensive study of the literature, is presented by Dr. W. Sibbald Robertson.[1] As this observer points out, a distinction is

1. Robertson, W. S.: Lancet, April 8, 1911, p. 930.

to be made between acute thyroiditis and acute strumitis, accordingly as a previously healthy gland or one already the seat of goiter is attacked. In all probability, the latter condition constitutes a predisposing influence. Sometimes the disorder occurs as an epidemic. It is, like goiter, more common in women than in men. Generally it is a complication or sequel of some infectious disease, although at times it appears to be idiopathic, that is, the causative factor eludes detection. The essential symptoms are local pain, swelling and discoloration, together with dyspnea and dysphagia. The voice may be affected and there may be irritative cough, with blood-streaked expectoration or actual hemoptysis. The morbid process terminates by resolution or suppuration or even gangrene. Recovery, though not invariable, is the rule. Treatment comprises attention to any preexisting disease, with observance of rest and application of local sedatives. Tracheotomy, with the introduction of a tube, may become necessary for the relief of respiratory obstruction. Suppuration demands immediate and radical surgical intervention.

Current Comment

A SANER FOURTH

Thanks to the country-wide agitation for a saner Fourth, the immediate newspaper reports of the annual sacrifices to the use of fireworks indicate that they are less in number this year than for many years. The American Medical Association is gathering all possible reports of injuries and of tetanus following them. Deaths from tetanus always swell the report considerably during the ensuing six weeks. It is hoped that the final total also will be much less this year. Everyone who has assisted in improving conditions is entitled to credit and is rejoicing over the lives that have been saved. The success of the substituted programs indicates that the "insane Fourth" can be more and more eliminated until it disappears.

THE LOS ANGELES SESSION

The Sixty-Second Annual Session of the American Medical Association, held at Los Angeles, California, June 26-30, 1911, has passed into history as a very successful affair. The attendance was much beyond expectations, and an unusually large proportion of members were accompanied by their wives and daughters. Especially considering the location of the meeting-place, the attendance was a surprise to many. Also, contrary to the expectation of some, the weather was delightfully cool and pleasant. Although some discomfort was felt on the trip across the plains, Los Angeles had ordered cool and comfortable weather and the order was filled. The social side of the meeting was on a lavish scale and quite ably managed. Our Los Angeles confrères have indeed set a high standard in this regard. The proceedings of the House of Delegates took place with despatch and many important matters were decided. The official minutes of the House were commenced in THE JOURNAL last week, thirty-two pages being devoted to them. They are continued in this issue. The scientific work at Los Angeles was excellent and the Sections were well attended. A number of Section articles are published in this issue of THE JOURNAL and the rest of the proceedings will be given as fast as possible. We take pleasure in presenting in these columns a picture of the President-Elect, Dr. Jacobi, and a sketch of his life. A full list of the officers elected will be found in the proceedings of the House of Delegates of Thursday afternoon. Those who attended the Los Angeles session are now either reaching their homes or lingering in the various resorts of the West, but the memories of the Sixty-Second Annual Session will abide with them for a long time to come.

THE DISINFECTION OF WATER-SUPPLIES

The increasing use of hypochlorite for the purification of drinking-water supplies makes the subject of proper methods of applying this and other chemicals a timely one. The usual method of introducing the disinfectant into the suction-pipe or suction-well has not proved altogether satisfactory owing to the injury to the pump-valves, and other difficulties. An ingenious device for applying chemicals directly to water flowing in pipes under pressure is described in a recent number of the *Engineering News*.[1] The principle of the apparatus consists in so regulating the pressure by mechanical contrivances that the solution is forced through the feed-pipe at a rate always proportional to the existing rate of flow through the main.

THE PROPHYLAXIS OF BLINDNESS CAMPAIGN

Another forward step in the warfare on preventable blindness is evident in the advance copy just received of the first issue of the *Monograph Series of the American Association for the Conservation of Vision*. The chief article in this first issue is a study by the Research Department of the Boston School for Social Workers, "Ophthalmia Neonatorum in Ten Massachusetts Cities," by Henry Copley Greene. Our own Dr. F. Park Lewis, who has been working so faithfully along this line, contributes a preface. The enlightenment of the profession and of the public on this important question is a work to receive the aid of all, and we are glad to see this pamphlet in circulation.

A Mechanical Vitalistic View.—The weight of such evidence as we have seems to favor a modified vitalist, or it might be called mechanical vitalistic view. All vital activity is measurable in terms of energy expended. An infinite chain of physical causation determines every vital movement. No power of self-determination beyond such causation could exist without the power to create energy. The activity of the organic mechanism may be suspended indefinitely and again revived if no disarrangement of its constituent particles occurs. On the other hand, no mathematical laws can be conceived of which could express the operation of the forces which direct the life-history of the individual. Are we not brought back to the old theistic or deistic conception of an inscrutable power pervading all nature in whom we live and move and have our being? (Walter S. Nichols, in *Science*, June 2, 1911.)

1. Engineering News, May 25, 1911, p. 619.

Medical News

CALIFORNIA

Alumni Meeting.—At the annual meeting of the Alumni Association of the College of Physicians and Surgeons, held at San Francisco, twenty graduates were admitted to membership. The following officers were elected: president, Dr. B. Rosen; vice-presidents, Drs. S. Wassilko and J. H. Flint; secretary, Dr. Charles M. Troppmann; treasurer, Dr. H. A. Mager; executive committee, Drs. Fred C. Keck, W. A. Colburn, S. B. Fontaine, O. H. Hoag, Jr., R. G. Duffiey, John H. Adams and Thomas Fleming.

A New Clinic.—A free clinic and dispensary has been opened in San Diego for the treatment of general medical and surgical cases. The clinic is to be known as the Talent Workers' Clinic, and is conducted jointly by the San Diego County Medical Society and a charitable organization known as the Talent Workers, whose ultimate aim is the establishment of a large general hospital for both charity and pay patients. Several rooms have been fitted up in the same building as is occupied by the Antituberculosis Clinic and the Associated Charities of San Diego, which will aid in looking up the standing of applicants for treatment.

Personal.—Dr. Edward C. Beach, physical instructor of the Los Angeles High School, has been appointed summer physical instructor of the Berkeley playgrounds.——Dr. and Mrs. George Ellery Hale, formerly of Pasadena, have returned from Europe. They expect to make a tour through Canada before returning home.——Dr. Gordon Grundy, Long Beach, who has just completed his medical course at Magill University, will sail for Europe soon.——Dr. Eugene Campbell, Los Angeles, was run down and painfully injured in an automobile.——Dr. Everett R. Smith, Los Angeles, has successfully undergone a severe surgical opertion at Minneapolis and will soon return home.——Dr. Charles F. Gladding, Oakland, who took 5 grains of morphin, June 14, is reported to be recovering at Providence Hospital.——Dr. William J. Walsh, San Francisco, was seriously injured when an automobile in which he was driving went over a high bluff.

ILLINOIS

Personal.—Dr. James A. Egan became the permanent secretary of the State Board of Health under the civil service law, which went into force on July 1. Dr. J. C. Westervelt, assistant secretary, and the thirty-three other officers and employees of the State Board of Health also came under the classified service, and are not subject to removal or discharge except for cause.

LOUISIANA

Tropical Medicine.—Ever since the meeting of the American Society of Tropical Medicine in New Orleans, a movement has been under way to raise a fund for the endowment of a chair of tropical medicine at Tulane Medical College. Local physicians have been urging a school of tropical medicine in New Orleans. This city being so closely allied to the tropical countries, and with Central American trade developing rapidly, the need for thorough scientific knowledge of the diseases originating in the tropics is recognized. The Liverpool School of Tropical Medicine is cited as an agency which has done more to foster English trade in the tropics than her warships and merchantmen. The local project is under the direction of Dr. Isadore Dyer, dean of the medical college. One contribution of $5,000 is reported. New Orleans merchants say this move, together with the operation of the newly organized Mississippi Valley, South America and Orient Steamship line, which is to be known as the Pan-American Mail, will do much to encourage commerce between North, Central and South America.

MAINE

Hospital Fund Raised.—A fund of $31,771 to complete and furnish the Webber Hospital, Biddeford, was raised by a local committee in that town and Saco in nine days and the new hospital will be opened this summer.

Antituberculosis Association Asks Appropriation.—The Androscoggin Antituberculosis Association, at its annual meeting held in Lewiston, reported that the association had spent about $1,000 during its first year, and voted to ask for an appropriation of $5,000 a year from the state for two years to extend the work of the association through Androscoggin County.

MARYLAND

Society Holds Banquet.—The first annual banquet of the Howard County Medical Society was held at Ellicott City, June 22. There was a large attendance from Howard and adjoining counties. Those who spoke were Dr. Joseph Clement Clark, Sykesville; Dr. William B. Ganbrill, Ellicott City, and Judge William Henry Forsythe, Jr.

Baltimore

Building Enlarged.—The administration building of the Johns Hopkins Hospital will be enlarged by a three-story brick and stone building for the use of the superintendent.

Personal.—Dr. William J. Coleman has been chosen superintendent of the hospital of the University of Maryland.——Dr. Gordon Wilson has been elected professor of clinical medicine of the medical department of the University of Maryland.——Dr. Julius W. Schlieder is rapidly failing as the result of an infection contracted while operating on a patient with Banti's disease.——Dr. Marshall L. Price received the honorary degree of master of science from Washington College, Chestertown.

From Johns Hopkins to Washington University.—Dr. Willis D. Gatch, assistant resident surgeon at Johns Hopkins Hospital, has been appointed resident surgeon at Washington University, St. Louis.——Dr. James S. Brotherhood, formerly assistant resident physician at Johns Hopkins Hospital, has been appointed resident physician at the Washington University, St. Louis.——Dr. Roger S. Morris, associate in medicine at Johns Hopkins University, has been appointed associate professor of medicine in Washington University.

MICHIGAN

County Society.—The Charlevoix County Medical Society has been organized. The officers elected are: president, Dr. Robert B. Armstrong; vice-president, Dr. Charles A. Montague; secretary, Dr. Allan M. Wilkinson; treasurer, Dr. Levi Lewis.

Personal.—Dr. Richard J. Hamlen, Detroit, is recovering from an attack of pneumonia and will take up his practice in a few days.——Dr. Malcolm Graham, Jonesville, was seriously injured by being thrown from his wagon, striking on his head and causing concussion of the brain.——Dr. and Mrs. Robert E. Miller and son sailed for Europe, June 15.——Dr. Edward C. Greene, Pontiac, assistant physician at the East Michigan Asylum for the Insane for seven years, has resigned.——Dr. Theodore E. Sands, Battle Creek, has undergone an operation for mastoiditis and is seriously ill.

MISSOURI

Personal.—Dr. Richard L. Sutton, Kansas City, will sail for Europe, July 15.

Missouri Tuberculosis Association.—At a recent meeting of the board of directors of the Missouri Association for the Relief and Control of Tuberculosis, of which Dr. Herman E. Pearse, Kansas City, is president, various working committees were appointed and plans of work outlined. The association expects to reduce the death-rate from tuberculosis in the state by lectures delivered by the medical profession and by publicity of the press on consumption. Segregation of the indigent tuberculous is advocated. Miss Winifred Doyle, secretary, was elected a delegate to the tuberculosis congress in Denver, where she was to read a paper.

St. Louis

Personal.—Dr. Max Meyer left for Montreal, Canada, June 26, en route for Europe.——Dr. Rolla Henry, assistant dispensary physician, was appointed chief physician by the hospital board.——Dr. Clive D. Scott, chief dispensary physician, has resigned to enter private practice.

NEW JERSEY

New Tuberculosis Hospital.—Before the Tuberculosis Hospital at Soho is opened there will be a public inspection of the institution, June 27-28. It is hoped to receive the first patients the early part of July.

Personal.—Dr. Stephen A. Disbrow, Ocean Grove, was seriously injured in an automobile collision, June 19.——Dr. Frank T. Neer, Paterson, has been assigned to the position of assistant surgeon in the Fifth Regiment, Paterson battalion.

Loving Cup for Staff Surgeon.—Dr. Joseph S. Baer, a member of the surgical staff of the Cooper Hospital, Camden, and one of the leading physicians of that city, was presented with a silver loving cup by his colleagues on the staff. Dr. Baer has severed his connection with the hospital and is about to start for California to regain his health.

NEW YORK

Personal.—Dr. W. Taylor Cummins, formerly of the pathologic department of the University of Pennsylvania, is in the new department of preventive medicine, Research Laboratories of the Health Department of New York.

New York City

New Building for Hospital.—A block on East Sixty-Sixth street has been purchased by the Federation of Russian Polish Hebrews of America on which it is proposed to erect new buildings for the Beth David Hospital. The new hospital will contain 150 beds and will be free to the poor.

Alumni Election.—The Society of the Alumni of Bellevue Hospital, at its 215th stated meeting, elected the following officers: president, Dr. H. Seymour Houghton; vice-president, Dr. J. Clifton Edgar; treasurer, Dr. Robert J. Wilson; secretary, Dr. Claude A. Frink, and historian, Dr. Robert James Carlisle.

To Have Board of Inebriety.—The board of estimate has approved the report of Bureau President McAneny, recommending that under the law passed one year ago, a board of inebriety be appointed to provide for the establishment of a system for the scientific handling of the problem of public drunkenness. The law provides for the establishment of a hospital and home for inebriates.

New Contagious Disease Hospital.—The new contagious disease hospital on Ellis Island, constructed at a cost of over $75,000, by the United States Government, and designed for the exclusive use of immigrants suffering from contagious diseases, especially measles, diphtheria and scarlet fever, was opened June 22. There are sixteen measles wards with room for 480 patients. The diphtheria and scarlet-fever patients will be accommodated in detached pavilion wards.

Need Hospitals for Tuberculosis.—Frank H. Mann, secretary of the Committee on Prevention of Tuberculosis, Charity Organization Society, says that the tuberculosis situation in the city is critical. It is estimated that at least 7,000 beds are needed immediately and there are at present only 3,200. Requests are before the board of estimate and apportionment to increase the facilities in the tuberculosis hospitals under the control of the department of health and of the department of public charities.

Infant Mortality.—Statistics for the week ending June 10 show that there were thirty-seven deaths from diarrheal diseases of babies under 1 year of age in the entire city, as compared with forty-three for the corresponding week of last year. During the week ending June 17, there were fifty deaths from the same cause, as compared with ninety-one for the corresponding week of 1910. The week ending June 24 showed a striking decrease in deaths from diarrheal diseases of children under 5 years of age, as compared with the corresponding week last year, there being sixty-one deaths this year and 136 last year.

NORTH CAROLINA

Alumni Banquet.—The alumni banquet of the North Carolina Medical College was a pleasant feature of the annual meeting of the state society. Covers were laid for 110 guests. Dr. J. Howell Way, Waynesville, made the principal address on "Loyalty to the College."

Personal.—Dr. Edward B. Clement, Salisbury, has located in Atlantic City, N. J., where he will be associated in practice with Dr. W. Blair Stewart.——Dr. J. Howell Way, Waynesville, has been elected a trustee of Trinity College at Durham.——Dr. Thomas A. Mann, health officer of Durham for several years, has resigned. He will be succeeded by Dr. William H. Boone, Morrisville.——Col. J. L. Ludlow, Winston, for many years past the civil engineer of the State Board of Health, was elected to honorary membership in the State Medical Society.

State Society Meeting.—The fifty-eighth annual session of the Medical Society of North Carolina was held under the presidency of Dr. Chalmers Van Poole in Charlotte, N. C., June 20-22. The annual address of the president strongly advocated higher preliminary education for prospective medical students. Public health and sanitation were given a not inconsiderable portion of the time. Dr. Thomas E. Anderson of Statesville was reelected a member of the State Board of Health for the term of six years, succeeding himself. Dr. Charles J. O'Hagan Laughinghouse of Greenville was also elected for a term of six years, succeeding Dr. George G. Thomas of Wilmington. The board reorganized and elected Dr. J. Howell Way of Waynesville, president, for a term of six years. The following officers were elected: president, Dr. Alfred A. Kent, Lenoir; vice-presidents, Drs. John P. Munroe, Charlotte; William P. Horton, Northwilkesboro, and J. Gerald Murphy, Wilmington; essayist, Dr. Richard N. Duffy, Newbern, and orator, Dr. John Hill Tucker, Charlotte.

OHIO

Personal.—Dr. Edward W. Walker, after a service of twenty-nine years, has resigned his position on the surgical staff of the Cincinnati Hospital. Dr. A. I. Carson was elected to his place, and Dr. Goodrich B. Rhodes was elected junior surgeon.——Dr. Christian R. Holmes, on the eve of his departure for Europe, was given a dinner by the professional and business men of Cincinnati, as a compliment for his work in making possible the new City Hospital.——Dr. Claude Lyons has accepted the position of assistant surgeon to Dr. Charles S. Means, Columbus.

Cleveland

Hospital Notes.—At the dedication exercises of the Central Dispensary and Milk Laboratory of the Babies' Dispensary and Hospital of Cleveland, Dr. Hastings H. Hart of the Russell Sage Foundation and Dr. J. Mason Knox, president of the National Association for the Study and Prevention of Infant Mortality, were the principal speakers. Plans for the erection of the Babies' Hospital were also made public.

OREGON

State Association Meeting.—The Oregon State Medical Association will hold its annual meeting in Portland, July 10-12. The program is to be of special value as it is to be filled largely by medical men from other sections of the country who are returning by northern routes from the meeting of the American Medical Association at Los Angeles. Great preparations have been made for the entertainment of the delegates and visitors.

Personal.—Drs. Eldred B. and Clara Waffle have started for Europe.——Dr. Fred A. Lienallen, Pilot Rock, has entirely recovered after his recent operation for appendicitis.——Dr. William T. Phy, Hot Lake, has retired from the management of the Hot Lake Sanitarium, La Grande, and has located in Spokane, Wash.——Dr. P. H. Fitzgerald, Gervais, has succeeded Dr. Harvey J. Clements as superintendent of the Sanatorium for the Prevention of Tuberculosis, Salem.

Portland

City and County Medical Society.—The City and County Medical Society of Portland, Ore., held its annual meeting May 15, and elected the following officers: president, Dr. William House; vice-president, Dr. Noble Wiley Jones; secretary, Dr. George S. Whiteside, who succeeded himself; treasurer, Dr. Katherine C. Manion, who was also reelected; to the board of councilors were elected, Dr. Aaron Tilzer, Dr. Frederick A. Kiehle, Dr. Mae H. Cardwell and Dr. Eduard P. Geary. The meeting concluded with a banquet in the dining hall of the Commercial Club, at which a movement was started looking to the purchase of a site, and erection of a building for use of the medical societies, and to be owned by the medical profession. Pledges were given to the amount of $15,000 and a committee was appointed to raise funds to complete the requirement.

PENNSYLVANIA

Physicians Sued.—The state health authorities of Lancaster have brought suit against a number of physicians for alleged failure to report births to the registrar of vital statistics as required by law.

Society Election.—The Warren County Medical Society held its monthly meeting at Youngsville, June 15. The officers are: president, Dr. Irving Hyer, North Clarendon; vice-presidents, Dr. Edwin S. Africa, Warren, and David H. Keller, Russel; treasurer, Dr. Charles W. Schmehl, Warren; censors, Drs. Christian J. Frantz, Edward B. Shellenberger and James Cass, Warren.

The Health Department's Statistical Work.—The work of the Bureau of Statistics of the Department of Health for 1910 shows that 541,721 records were received and tabulated. Of these 401,459 were indexed and permanently filed; 119,771 certificates of death were issued, 9,560 certificates of still births, 209,636 certificates of births; 62,492 transcripts of marriages were made, 140,262 reports of communicable diseases were received, 3,185 certified copies of certificates were issued and $1,592.50 received for the same and returned to the state treasurer. The return to the state for certified copies should in a few years make this bureau largely self-supporting.

Personal.—Dr. Robert R. Roth, New Castle, has been appointed surgeon for the Pennsylvania Railroad.——Dr. James P. Kerr, Pittsburg, has been named a member of the city council.——Dr. William G. Adair, Pittsburg, is recovering from blood-poisoning developed from an injury he received while operating on the throat of a patient.——Dr. John D. Stevenson, Alequippa, has gone to Boston to take up postgraduate work at the Harvard Summer School.——Dr. and Mrs. Francis H. Brobst, Reading, have left for a two-year trip around the world.——Dr. James L. Patterson, Philadelphia, was presented with a loving cup by the Alumni Association of the Chestnut Hill Academy.——Dr. W. A. Backenstoe has returned to his home in Emaus, after spending seven and a half years in medical missionary work, under the Methodist Board, in Natal, South Africa. He is on a two years' furlough.

Philadelphia

Hospital Report.—According to a recent report of the Medico-Chirurgical Hospital, a total of 86,664 patients have been treated in the institution, as compared with 75,221 last year, an increase of 12,444.

Officers Elected.—At the annual business meeting of the Alumni Association of Jefferson Medical College, the following officers were elected: president, Dr. Randle C. Rosenberger; vice-president, Dr. John W. West; corresponding secretary, Dr. Henry K. Gaskill; recording secretary, Dr. Edward Klopp, and treasurer, Dr. Alfred Heineberg.

To Aid Hospital.—In order to relieve the deficit of the Germantown Hospital which last year amounted to $16,000, the managers have devised a plan to interest the public in the institution. They have sent out a small book, entitled, "Pass It On, A True Story and Its Lessons." It describes a serious accident, and tells how the injured person was taken to the Germantown Hospital and cared for by the surgeons and nurses.

New Medical Library in the Northeast.—At a recent meeting of the library committee of the Philadelphia County Medical Society, it was unanimously decided to open a new medical library July 1 in the branch of the Free Library of Philadelphia, 4668 Frankford Avenue, which is the meeting-place of the Northeast Branch of the Philadelphia County Medical Society. One hundred and sixty volumes have been placed on the shelves, and six journals will be received regularly.

County Society Elects Delegates.—At the quarterly business meeting of the Philadelphia County Medical Society held June 21, the society elected the following delegates and alternates to represent that body at the state medical meeting to be held in Harrisburg in September:

DELEGATES: Drs. William M. Welch, John B. Roberts, Charles A. E. Codman, J. Torrance Rugh, Clarence P. Franklin, Levi J. Hammond, Henry D. Jump, James Thorington, Wilmer Krusen, William S. Newcomet, John F. Roderer, Howard D. Geisler, Frank Embery and William N. Bradley.

ALTERNATES: Drs. Edward R. Stone, Daniel A. Modell, William T. Hamilton, James N. McKee, Herman B. Allyn, T. Turner Thomas, Joseph S. Gibb, William S. Higbee, John W. West, William E. Parke, Stuart C. Runkle, John D. McKean, George A. Knowles, J. W. McConnell, H. R. M. Landis, Frank C. Hammond, John Leedom, Jesse O. Arnold, John T. Walker, G. Mason Astley, W. Harmer Good, Thomas R. Currie, William H. Randall, Josephus T. Ullom, W. L. C. Spaeth, Albert C. Buckley, Morris B. Cooperman, and Max Stalker.

SOUTH DAKOTA

State Society Meets.—At the annual meeting of the South Dakota Medical Association at Aberdeen, June 16, the following officers were elected: president, Dr. William G. Smith, Sturgis; vice-president, Dr. Charles E. McCauley, Aberdeen; secretary, Dr. Frederick A. Spafford; treasurer, Dr. Robert D. Alway; councilors, Drs. James B. Vaughn, Castlewood, and James Roane, Yankton. Mitchell was selected as the place for the 1912 meeting.

GENERAL NEWS

Medical Corps Dines Militia.—The officers of the Medical Corps, United States Army, stationed at the maneuver division, San Antonio, gave a dinner at the St. Anthony Hotel, May 23, to the medical officers of the organized militia detailed for duty at the camp. Eighty were present and Lieutenant Colonel Henry P. Birmingham, chief surgeon of the division, acted as toastmaster.

National Tuberculosis Association Meets.—The National Association for the Study and Prevention of Tuberculosis held its meeting in Denver, June 20-21, and elected the following officers: president, Dr. Mazyck P. Ravenel, Madison, Wis.; vice-presidents, John M. Glenn, New York, and Dr. George Walker Holden, Denver; secretary, Dr. Henry Barton Jacobs, Baltimore; treasurer, Dr. George M. Sternberg, Washington, D. C.

Distribution of Small-Pox.—Out of nearly 20,000 cases of small-pox reported in the United States during 1909, there were ninety-two deaths, equivalent to a mortality of less than a half of 1 per cent. There were 2,197 cases in Kansas, 2,135 in Illinois, 1,854 in Utah, and 1,733 in North Carolina.

Railway Surgeons Hold Meeting.—At the annual meeting of the Association of Railway Surgeons of the Norfolk and Western Railway, held in Richmond, Va., the following officers were elected: president, Dr. George Ben Johnston, Richmond; vice-presidents, Drs. Will R. Williams, Richlands, Va., J. Francke Fox, Bluefield, W. Va., Nicholas P. Oglesby, Columbus, O., and John W. Simmons, Martinsville, Va., and secretary-treasurer, John R. Garrett, Roanoke, Va.

Frisco Surgeons Hold Meeting.—At the tenth annual meeting of the Frisco System Medical Association, held in St. Louis, May 31-June 1, the following officers were elected: president, Dr. Millington Smith, Oklahoma City, Okla.; vice-presidents, Drs. Allen C. Brown, Moselle, Mo., and J. Wesley Price, Memphis, Tenn.; secretary, Dr. F. E. Chapman, St. Louis; treasurer, Dr. Walter A. Camp, Springfield, Mo., and executive committee, Drs. Benjamin C. Schwab, Oklahoma City; George W. Cale, Jr., St. Louis; William H. Wilder, Memphis, Tenn.; W. Britt Burns, Memphis, Tenn.; E. J. Neathery, Sherman, Texas, and William N. Yates, Fayetteville, Ark. Springfield, Mo., was selected as the place of meeting for 1912.

Institutional Census.—A preliminary count of the population in institutions comprising prisons, institutions for juvenile delinquents, almshouses and institutions for the insane and feeble-minded from Dr. J. A. Hill, chief statistician for revision and results in the Census Bureau, gives the following figures: The prison population on Jan. 1, 1910, was 109,311; the admissions or commitments to prisons during 1910 were 462,530; and the number of prisoners discharged during that year was 458,996. The number of juvenile delinquents reported at the census of 1910 in institutions for that class was 22,903. The number of paupers in almshouses on Jan. 1, 1910, was 83,944. The number admitted during the year 1910 was 106,457, and the number discharged or dying during that year was 100,858. The enumeration of the insane in asylums indicates a very striking increase in this class of the population. In 1904 the number of insane in institutions was 150,151. In 1910 this number had increased to 184,123, an increase of 22.6 per cent. in six years. The number of commitments to insane asylums during the year 1904 was 49,622, and during the year 1910 was 59,628, an increase of 20.2 per cent. In 1904 the feeble-minded in institutions numbered 15,347; in 1910 the number was 20,199.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, June 17, 1911.

National Insurance Bill

The opposition of the profession to the national insurance bill, described in previous letters to THE JOURNAL, is increasing and becoming thoroughly organized. At the meeting of the representatives of the British Medical Association in London the following resolutions were adopted: (1) An income limit of $10 a week for those entitled to medical benefit. (2) Free choice of doctor by patient, subject to consent of doctor to act. (3) Medical and maternity benefits to be administered by local health committees, and not by friendly societies. (4 The method of remuneration of medical practitioners adopted by each local health committee to be according to the preference of the majority of the medical profession of the district of that committee. (5) Medical remuneration to be what the profession considers adequate, having due regard to the duties to be performed and other conditions of service. (6) Adequate medical representation among the insurance commissioners in the central advisory committee, and in the local health committees, and statutory recognition of a local medical committee representative of the profession in the district of each health committee. Together with these the following general resolution was also adopted: "While approving of the main objects of the bill, and being desirous of cooperating for their attainment, nevertheless, in view of the fact that the present proposals of the government are unsatisfactory, it is the opinion of this meeting that the government should be asked to delay dealing with the proposed medical benefits until satisfactory terms have been arranged with the medical profession." Meetings of the divisions of the association have been held all over the country, and these

resolutions have been endorsed practically with unanimity; the only difference of opinion is on the wage limit of $10 a week, which many think is too high and should be reduced to $6 or $7. Some physicians bitterly point out that their private patients consist entirely of persons earning these low wages and that as far as males above the age of 16 and unmarried females, their private practice would be entirely wiped out. Moreover, the establishment of school clinics (described in previous letters to THE JOURNAL) has largely reduced medical practice among children. It is important to note that this is not a struggle on the part of the profession for high fees, or even for moderate ones, but a struggle of men attending the poor and taking very small fees such as 50 cents for a visit and medicine, or 25 cents, and even as little as 12 cents, for advice and medicine at the office. It is true that they are offered in exchange the capitation fees of those persons who may choose to inscribe themselves under their names. But this alternative is viewed with considerable apprehension, as it is feared it will involve a great reduction of income with increase of work. Even if the profession as a whole did not lose financially by the bill, it is thought that there would be such dislocation of practice that, while some men might be better off, others would be ruined. Mr. Lloyd-George, the chancellor of the exchequer, has made the great mistake of not thoroughly informing himself of the attitude of the profession toward the bill before introducing it. He has spared no pains in studying the problem from other points of view and for two and one-half years has been in communication with representatives of the friendly societies, while he gave only one interview to representatives of the profession (at their request) before introducing the bill. He has made the great error of taking the terms of the friendly societies as a basis and has never realized how objectionable contract practice is to the profession. There is now a strong feeling that the time has arrived to abolish it altogether. On the other hand, the friendly societies are taking up a very hostile attitude to the profession. They resent as a scandalous misrepresentation the chancellor's description of them as in some cases underpaying the doctors and insist on having the appointment and control of their physicians in their own hands and power to lay down rules and regulations for the performance of their duties. One representative of the societies described the spirit in which the physicians approached the chancellor as that of vultures after carrion, and another said they were out to get all the money they could. The quarrel between the societies and the physicians is becoming more acute, and the chancellor is in the unfortunate position of being between two fires. Whatever concession he makes to one party will be resented by the other. The profession is showing a unity and determination never before evinced and always though impossible by its own members. The British Medical Association is naturally taking the lead, and the large part of the profession outside it is falling into line with the action of the association. The latest movement is to establish a "war fund" for the purpose not only of fighting the bill but also for indemnifying those members of the profession who largely depend on contract practice and may resign their appointments as part of the campaign. The British Medical Association has sent post-cards to the 30,000 physicians in the kingdom asking for their support in the struggle, and already (in the course of less than a week) has had 15,000 favorable replies. An investigation into the experience of the Manchester Unity of Oddfellows (the most important of the friendly societies) shows that each member between the ages of 16 and 65 had 16.8 days of sickness per annum on an average, and also attended the doctor's office for consultation 4.3 times. For this work the bill now offers the doctor $1.25, a sum entirely inadequate.

BERLIN LETTER

(*From Our Regular Correspondent*)

BERLIN, June 15, 1911.

Personal

The honors to Professor Ehrlich, on which I recently commented, have been increased by the Kaiser, who has bestowed on him the title of Excellency and has appointed him an active privy councilor. This appointment, which among German physicians has been conferred only on Robert Koch, Behring, von Bergmann and Leyden, means much more to Ehrlich because it is the first time within our knowledge that such a title has been given to a scientist of the Jewish faith. This fact may be taken as new evidence that neither the Kaiser nor the Prussian administration is antisemitic. It is not superfluous to remark that the opposite has frequently been claimed.

July 22, Professor Waldeyer will celebrate the fiftieth anniversary of his doctorate. The celebration will be somewhat ceremonious, the more so for the reason that a few years ago Waldeyer declined to permit a formal celebration of his seventieth birthday.

Present Status of the Antituberculosis Campaign in Germany

According to the report of the general secretary of the German Central Committee for the Antituberculosis Campaign, there are at present ninety-nine public and thirty-four private sanatoriums for adult consumptives; in all about 1,400 beds are available for adult tuberculous patients. With an average stay of three months, somewhat more than 56,700 patients can be received for permanent curative treatment each year. Children affected with pronounced tuberculosis are accommodated in twenty-two children's institutions with 1,000 beds. Children with scrofulous affections and those threatened with tuberculosis may be received in eighty-six institutes with 8,122 beds. Ninety-nine forest convalescent stations are open during the summer months, some provided only for day service but others for the night also. Of these a number remain open during the winter months also for the reception of patients. Recently following the experience of America, such mildly affected phthisical patients as can work during the day are received in out-door camps for the night only. In this way the stations are better employed than formerly and those patients who are able to work can pass the night in good open air and receive a nourishing supper and breakfast and thus improve in spite of their employment. This method was first given a trial in the out-door station for women at Pankow-Schönholz. As the results were very good, the arrangements will be increased this year and will be introduced into the convalescent camp for men at Johannisthal near Berlin.

The number of open-air schools in which full instruction is given amounts to fifteen. The farm colonies have not been increased. There is only one such institution for adults at Sannum and one for children at Hohenlychen. At the Hohenlychen institution there is also a housekeeping school for girls and a school in gardening for boys and lately a trade school has been added.

For the selection of patients for the sanatoriums thirty-four observation stations have been established, which is a considerable increase, and the number of homes for patients in the advanced stages of tuberculosis has increased. There are 144 special asylums or special wards in the general hospitals, the majority being in the Rhine province. In most parts of Prussia these special wards are not looked on by the tuberculous with any favor. For this reason the majority of advanced consumptives still are kept at home as previously, and they have to be isolated there as effectively as possible. This task is devolving more and more on the tuberculosis dispensaries, the number of which has increased during the year by more than 200 and is continually growing.

The permanent results of curative treatment are improving from year to year. In Bavaria, Hesse, Hamburg and the imperial provinces, tuberculosis is made a reportable disease under certain circumstances, and the disinfection of dwellings of reportable cases is required on change of residence. A great advance in the efforts to combat tuberculosis is to be expected from the imperial insurance law.

The German Temperance Movement

The war against alcohol by total abstinence is carried on in Germany by organizations of three different kinds, the Good Templars, the religious societies and the professional societies. The most powerful part of the movement is represented by the Good Templars. They are collected into lodges and number in Germany about 50,000 men and women besides a special department of 18,000 children and youths. The religious movement is found chiefly in the evangelical society of the Blue Cross, which, like the Good Templars, forms an international organization with similar societies of other countries. About 40,000 adults and 9,000 children belong to the German general societies. Subordinate divisions of the Blue Cross are the Blue Cross bands and the Free Blue Cross. The latter consists chiefly of Methodist and Baptist societies. In addition there are Catholic cross associations which stand between the Good Templar order and the Blue Cross. To these also belongs a department for the young, the so-called Guardian Angel League. The entire membership of all the religious total abstinence societies in Germany amounts to about 100,000. The professional societies are found in many callings, among ministers, teachers, lawyers, physicians, merchants, etc. Their membership is small and will scarcely exceed 9,000.

Marriages

GEORGE FRANKLIN COTTLE, M.D., U. S. Navy, to Miss Mercedes Ellis of Los Angeles, at the U. S. Naval Station, Tutuila, Samoa, April 25.

LAWRENCE J. SIMONTON, M.D., Cumberland, Md., to Miss Ellen N. Kilgour of Rockville, Md., at Alexandria, Va., June 9.

ALBERT H. PETERS, M.D., to Mrs. Carrie H. Kennedy, both of Colorado Springs, Colo., at Kansas City, Mo., June 15.

GEORGE RALPH CHRISTIE, M.D., Long Prairie, Minn., to Mrs. Ida Lewis Mason of Norwood Park, Chicago, June 24.

ROY CLEVELAND HEFLEBOWER, M.D., U. S. Army, to Miss Florence Mae Boesch of Washington, D. C., June 6.

WALTER C. CHIDESTER, M.D., to Mrs. Dollie Wheaten, both of San Mateo, Cal., at Stockton, Cal., June 15.

BERNARD O. THOMAS, M.D., Frederick, Md., to Miss Margaret Bartholow, at New Market, Md., June 22.

CHARLES HAROLD GILBERT, M.D., Boston, to Mrs. Louise Veazie Hollister of Bloomfield, N. J., June 16.

EDWARD LYEAN SWADENER, M.D., Keshena, Wis., to Miss Iva N. Boatman of Clinton, Ind., June 20.

ARTHUR LEOPOLD FORSTER, M.D., Chicago, to Miss Helen Shannon of Grand Rapids, Mich., June 12.

CHARLES ANDREW HARGITT, M.D., Syracuse, N. Y., to Miss May Lillian Welch of Brooklyn, June 16.

JOSEPH FRANCIS LONDRIGAN, M.D., to Miss Mariette McGinty, both of Hazelton, Pa., June 14.

OLAF MARTIN STEFFENSON, M.D., Chicago, to Miss Leonelle Pearl Perrin of Waukegan, Ill., June 19.

Deaths

Isaac Wright Blackburn, M.D. University of Pennsylvania, Philadelphia, 1882; of Washington, D. C.; chief pathologist at the Government Hospital for the Insane, and known as one of the foremost pathologists of the day; professor of morbid anatomy and special pathology in the medical department of Georgetown University and of morbid anatomy in the medical department of George Washington University, Washington; died, June 19, of chronic enterocolitis, aged 59.

Walter Stansby King, M.D. Rush Medical College, 1894; of Cedar Rapids, Ia.; a member of the Iowa Union Medical Society and the Iowa State Medical Society; coroner of Linn County for the third term; died at St. Luke's Hospital, Cedar Rapids, June 16, from injuries received in an automobile accident several days previous, aged 40.

Charles Goddard Weld, M.D. Harvard Medical School, 1881; of Brookline, Mass.; for many years connected with the Massachusetts General and the Carney hospitals in Boston; a director of the Massachusetts Institute of Technology; who retired from active practice several years ago; died at his home, June 18, from paralysis, aged 54.

William John Walsh, M.D. University of California, San Francisco, 1902; of San Francisco; a member of the San Francisco County Medical Society; coroner of San Francisco; died at Mt. Zion Hospital, June 20, from traumatic pneumonia induced by injuries received in an automobile accident nine days previous, aged 30.

George Washington Bailey, M.D. Homeopathic Medical College of Pennsylvania, Philadelphia, 1862; University of Pennsylvania, Philadelphia, 1868; for more than forty years a physician of Elizabeth, N. J.; who retired from active practice in 1905; died at his home, June 21, aged 70.

Theodore E. Sands, M.D. Starling Medical College, Columbus, Ohio, 1886; of Battle Creek, Mich; a member of the American Medical Association; surgeon to the Nichols Memorial Hospital, Battle Creek; died at Harper Hospital in Detroit, June 22, after a mastoid operation, aged 48.

Maris Gibson, M.D. University of Pennsylvania, Philadelphia, 1883; of Wilkes-Barre, Pa.; a member of the American Medical Association; for many years a member of the medical staff of the Wilkes-Barre City Hospital; died at his home, June 19, aged 70.

Thomas Hay MacDonald, M.D. University of Michigan, Ann Arbor, 1879; a member of the American Medical Association; for more than thirty years a practitioner in Petersburg, Mich.; died at his home in that place, June 20, from valvular heart trouble, aged 57.

William Pitney Brierley, M.D. Albany (N. Y.) Medical College, 1886; of Albany, N. Y.; a member of the Medical Society of the State of New York; was struck and instantly killed, June 22, by the trolley car which he was about to board, aged 48.

Eugene T. Hall. M.D. Medical College of Ohio, Cincinnati, 1875; a veteran of the Civil War; died at his home in Fort Worth, Texas, June 16, as the indirect result of a collision between his buggy and an automobile more than a month before.

Ray A. Alexander, M.D. John A. Creighton Medical College, Omaha, 1910; of Bristow, Neb.; was found dead, June 12, from the effects of an overdose of strychnin, said to have been self-administered with suicidal intent, aged 34.

Margaret Anderson, M.D. Chaddock School of Medicine, Quincy, Ill., 1888; of Quincy, Ill.; the oldest practicing woman physician in Adams County; died at Blessing Hospital, Quincy, June 16, from cancer of the stomach, aged 60.

John Jeremiah Van Rensselaer, M.D. Albany (N. Y.) Medical College, 1859; a veteran of the Civil War; who had retired from active practice; died at his home, Swartswood, N. J., June 18, from heart disease, aged 75.

Thomas Toney, M.D. University of Nashville (Tenn.), 1875; a veteran of the Civil War; died at his home in Joplin, Mo., June 18, from the effects of injuries received in a fall several months before, aged 68.

William H. Horn, M.D. Gate City Medical College, Texarkana, Texas, 1905; of Taylor, Ark.; was shot and killed in Lewisville, Ark., June 17, while acting as peacemaker in a quarrel, aged 43.

Theron. E. Quinby, M.D. Western Reserve University Medical Department, Cleveland, Ohio, 1868; of Syracuse, N. Y.; died at his home in that city, June 16, after an illness of a week, aged 64.

William C. Webb, M.D. Bellevue Hospital Medical College, New York City, 1877; who resided near Nicholasville, Ky.; died in Lexington, Ky., June 21, from acute stomach trouble, aged 58.

Matthew T. Murdoch, M.D. Memphis (Tenn.) Hospital Medical College, 1911; intern in the Memphis City Hospital; died at the home of his father in Okeene, Okla., June 7, from typhoid fever, aged 27.

George D. Miller, M.D. Missouri Medical College, St. Louis, 1885; of Boydsville, Mo.; died June 3, from the effects of an overdose of morphin, said to have been taken with suicidal intent, aged 73.

Leroy M. Sprowls, M.D. Jefferson Medical College, 1882; of Uledi, Pa.; formerly president of the Fayette County Medical Society; died suddenly at his home, June 17, of heart trouble, aged 53.

Henry E. Latz, M.D. University of Buffalo (N. Y.), 1881; of South Minneapolis, Minn.; died at St. Mary's Hospital, Minneapolis, June 16, after an operation for appendicitis, aged 59.

J. H. Whatley, M.D. Memphis (Tenn.) Hospital Medical College, 1911; of Silver City, Miss.; died in that place, June 12, from appendicitis and abscess of the liver, aged 24.

Morris Christie, M.D. New York University Medical College, New York City, 1859; for many years a practitioner of Antrim, N. H.; died at his home, June 4, aged 79.

John F. Fargo, M.D. Hahnemann Medical College, Chicago, 1882; formerly of Chicago and Minneapolis; died at his home in Hollywood, Cal., June 6, aged 76.

Arthur Elisha Platt, M.D. University of Vermont, Burlington, 1899; died at his home in Riverside, Vt., June 14, from blood poisoning, aged 32.

Jefferson Odenbaugh, M.D. Miami Medical College, Cincinnati, 1880; died at his home in La Grange, Ill., June 9, of paralysis, aged 64.

John E. Smith, M.D. Atlanta (Ga.) Medical College, 1881; died at his home in Atlanta, June 16, from heart disease, aged 50.

Thomas Hunter, M.D. University of Pennsylvania, Philadelphia, 1872; died at his home in Philadelphia, June 19, aged 63.

J. Walden Pratt, M.D. Eclectic Medical Institute, Cincinnati, 1877; died at his home in Marengo, O., June 13, aged 55.

Alfred Z. Caple, M.D. Indiana Medical College, Indianapolis, 1873; died at his home in Argos, Ind., June 5, aged 63.

Correspondence

Unauthorized Use of a Physician's Name

To the Editor:—A book entitled "Large Fees and How to Get Them," has recently appeared, published by one W. J. Jackman, which purports to contain an introductory chapter written by me. The book is being advertised as having been jointly written by one Dr. A. V. Harmon and myself. I desire to state that my name is being fraudulently used. I know neither the publisher nor Dr. Harmon, nor did I ever write a line for the book. The introductory chapter and several later chapters—for which latter, credit is not given—were, without my permission, taken bodily from my "Medicine as a Business Proposition." There is no Dr. A. V. Harmon, in either the Blue Book or American Medical Directory. He is in my opinion a blind, the authorship of the book resting with the publisher. All persons selling or circulating same, or advertising or reviewing the book in connection with my name, do it at the risk of legal complications. I would respectfully ask the medical journals of the country to copy this letter verbatim, thus warning the profession against what, so far as the use of my name is concerned, is a fraud, pure and simple. The title of the book alone should condemn it, while as for much of its contents, the less said the better.

G. FRANK LYDSTON, Chicago.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

WATER-COOLING SYSTEMS

To the Editor:—In connection with the mention of the special combination drinking-fountain in use in the Association building, described in THE JOURNAL, June 17, p. 1811, I notice that the drinking-water is cooled by the ammonia process. Kindly describe this process. Is it practical for public schools, making water absolutely safe for drinking purposes?

C. W. HALTERMAN, Clarksburg, W. Va.

ANSWER.—In general, refrigeration by the so-called ammonia process is based on the property of a liquid gas absorbing heat on passing from the liquid to the gaseous form and in this way cooling whatever is in the immediate vicinity of the expanding gas.

In practical refrigerating plants, liquid ammonia under pressure is allowed to escape by means of a valve, to the pipes which are to do the cooling. The release of the liquid gas to a relatively low pressure causes it to evaporate rapidly and again to become gaseous, at the same time expanding and absorbing heat. If it is desired to cool water, these pipes are situated directly in the tank of water or for more extensive cooling are run through a tank of brine, which is cooled below the freezing point of water and still remains in the liquid condition. This cold brine is then pumped through pipes, which because of their low temperature cause the moisture of the atmosphere to condense on them and for the same reason freeze there in the form of a dense coating of frost. Pipes thus filled with cooled brine are used in keeping low temperatures in cold-storage warehouses.

The ammonia which has cooled the water or brine and which is now in the gaseous state is compressed by means of a special pump and pumped to a series of water-cooled pipes where under the combined influence of pressure and low temperature the gas liquefies and is again ready to be released and again act as a refrigerant.

A large part of the ice used at present is made by the ammonia process and most large cold-storage houses are thus cooled. But this process is not limited to its use on so large a scale, as there are now on the market small ammonia plants made especially for home, office, school or larger use.

More detailed information regarding the various designs of refrigerating machines and plants may be obtained from such books as "The Mechanical Production of Cold," by J. A. Ewing, LL.D., F.R.S. (Cambridge University Press, London, $3.25), and "Refrigeration, Cold Storage and Ice-Making," by A. J. Wallis-Taylor, C.E. (Crosby, Lockwood & Sons, London, $4.50).

FICTION VOICING THE AIMS AND IDEALS OF MODERN PHYSICIANS

A letter was published in this department some time ago, asking for the names of books (modern fiction) in which the aims and ideals of modern physicians are extolled. We stated at that time that if readers would tell us the names of books which they had found of this character we would print the list in THE JOURNAL. We have been informed of the following books:

Allen, James Lane: The Doctor's Christmas Eve.
Balzac, H.: Le médecin de campagne (translated as The Village Doctor, or The Country Doctor).
Eliot, George: Middlemarch.
Gordon, Charles W. (Ralph Connor): The Doctor.
Herrick, Robert: The Master of the Inn.
Hitchins, Robert: Belladonna.
Ibsen: An Enemy of the People.
Jewett, S. O.: A Country Doctor.
Oppenheim, James: Dr. Rast.
Ruffini, J.: Dr. Antonio.
Tompkins, Juliet Wilbor: Dr. Ellen.
Trollope, A.: Dr. Thorne.
Watson, John Maclaren (Ian Maclaren): A Doctor of the Old School; Beside the Bonnie Brier Bush.
Wright, Harold Bell: The Calling of Dan Matthews.

ARTICLES ON HOOKWORM

To the Editor:—Is there a number of THE JOURNAL devoted largely to the hookworm disease? The disease exists among the Mexicans. A. L. TEMPLE, Mexico City, Mex.

ANSWER.—There is no special number devoted to this subject, but the following original articles dealing with it have been published recently:

Ashford, B. K., and Igaravidez, P. G.: Summary of a Ten Years' Campaign Against Hookworm Disease in Porto Rico, THE JOURNAL, May 28, 1910, p. 1759.
Lindemann, E. E.: Treatment of Hookworm Disease, THE JOURNAL, May 28, 1910, p. 1765.
Litterer, W.: The Non-Oviparous Female Hookworm, THE JOURNAL, Oct. 15, 1910, p. 1378.
Gunn, H.: Hookworm Disease in the Mines of California, THE JOURNAL, Jan. 28, 1911, p. 259.
Strosnider, C. F.: Hookworm Disease, THE JOURNAL, April 8, 1911, p. 1024.

See also Public Health Bulletin 32, U. S. Public Health and Marine-Hospital Service, "Hookworm Disease, Its Nature, Treatment and Prevention." By C. W. Stiles, 1910.

THE ETHER RAUSCH

To the Editor:—The article by Coughlin in THE JOURNAL last week, page 17, may be usefully supplemented by looking up in the files of THE JOURNAL various points in the technic of the ether *Rausch*, the "ether jag," as the term has been freely translated. Sudeck's early communication on the subject was reviewed Dec. 15, 1906, page 2045; Landström's article, Dec. 4, 1909, page 1953, and other points in the technic were brought out in abstracts, page 717, Aug. 22, 1908, and page 1017, March 19, 1910. C.

The Public Service

Medical Corps, U. S. Navy, Changes

Changes during the week ended July 1, 1911.

Short, W. H., P. A. surgeon, detached from the reserve torpedo division, navy yard, Charleston, S. C., and ordered to the naval station, Key West, Fla.

Winn, C. K., P. A. surgeon, detached from the naval station, Key West, Fla., and ordered to duty at the naval hospital, New York.

Pollard, J. B., asst-surg., detached from the *Prairie* and ordered to the *Virginia*.

Johnson, L. W., asst.-surg., detached from the *Prairie* and ordered to duty with the reserve torpedo division, navy yard, Charleston, S. C.

Halsey, W. H., asst.-surg., detached from the *Virginia* and ordered to the *Solace*.

McCullough, R. E., surgeon, detached from the *Georgia* and ordered to the *Minnesota*.

Alfred, A. R., surgeon, detached from the *Minnesota* and ordered to temporary duty in the bureau of medicine and surgery, Navy department.

Lovering, P. A., medical director, detached from the naval medical supply depot, New York, and ordered to command the naval hospital, navy yard, Mare Island, Cal.

Simons, M. H., medical director, detached from command of the naval hospital, Mare Island, Cal., and ordered home.

Wieber, F. W. F., medical inspector, detached from the navy recruiting station, New York, and ordered to the navy yard, Boston.

Langhorne, C. D., surgeon, detached from the naval hospital, Naval Home, Philadelphia, and ordered to the marine barracks, Washington, D. C.

U. S. Public Health and Marine-Hospital Service

Changes for the seven days ended June 28, 1911.

Williams, L. L., surgeon, leave of absence for six days from June 12, 1911, amended to read "five days from June 13, 1911."

Geddings, H. D., surgeon, granted one month's leave of absence from June 23, 1911, on account of sickness.

Foster, M. H., P. A. surgeon, directed to proceed from Seward to Juneau, Alaska, on special temporary duty.

Moore, Dunlop, P. A. surgeon, granted 21 days' leave of absence from June 26, 1911.

Creel, R. H., P. A. surgeon, granted 14 days' leave of absence from July 1, 1911.

Lanza, A. J., asst.-surg., directed to proceed to Fort Stanton, N. Mex., and report to the medical officer in command for duty and assignment to quarters.

Clark, E. S., A. A. surgeon, granted 30 days' leave of absence from July 1, 1911.

Horning, Henry, A. A. surgeon, granted seven days' leave of absence from June 19, 1911, under paragraph 210, Service Regulations.

James, W. F., A. A. surgeon, granted 30 days' leave of absence from July 1, 1911.

Knapp, H. B., A. A. surgeon, granted leave of absence without pay for the period June 14 to Oct. 1, 1911.

Reimer, H. B. C., A. A. surgeon, granted 11 days' leave of absence from July 6, 1911.

Wakefield, H. C., A. A. surgeon, granted 18 days' leave of absence from June 26, 1911.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

ALABAMA: Montgomery, July 11. Chairman, Dr. W. H. Sanders.

CONNECTICUT: Regular, City Hall, New Haven, July 11-12. Sec., Dr. Charles A. Tuttle, 196 York St.; Homeopathic, Grace Hospital, New Haven, July 11. Sec., Dr. Edwin C. M. Hall, 82 Grand Ave.; Eclectic, Hotel Garde, New Haven, July 11. Sec., Dr. T. S. Hodge, 19 Main St., Torrington.

ILLINOIS: Coliseum Annex, Chicago, July 25-27. Sec., Dr. James A. Egan, Springfield.

INDIANA: Room 120 State House, Indianapolis, July 11-13. Sec., Dr. W. T. Gott, Crawfordsville.

MASSACHUSETTS: State House, Boston, July 11-13. Sec., Dr. Edwin B. Harvey.

NEW MEXICO: The Capitol, Santa Fe, July 10-11. Sec., Dr. J. A. Massie.

OKLAHOMA: Ione Hotel, Guthrie, July 11. Sec., Dr. John W. Duke.

SOUTH DAKOTA: Mitchell, July 12-13. Sec., Dr. F. W. Freyberg, Mitchell.

VERMONT: Burlington, July 11-13. Sec., Dr. W. Scott May, Underhill.

WEST VIRGINIA: Capitol Building, Charleston, July 10-12. Sec., Dr. H. A. Barbee, Point Pleasant.

WISCONSIN: Madison, July 11-13. Sec., Dr. John M. Beffel, 3200 Clybourn St., Milwaukee.

Arkansas May Report

Dr. F. T. Murphy, secretary of the State Medical Board of the Arkansas Medical Society, reports the written examination held at Little Rock, May 9-10, 1911. The number of subjects examined in was 12; total number of questions asked, 120; percentage required to pass, 75. The total number of candidates examined was 88, of whom 72 passed and 16 failed. Ten candidates were licensed through reciprocity. The following colleges were represented.

PASSED

College	Year Grad.	Per Cent.
College of Physicians and Surgeons, Little Rock (1909) 75; (1911) 75.2, 76.9, 78.1, 78.8, 80.6, 81.7, 81.7, 83.2, 83.8, 84.7, 84.8, 85.4, 87.7, 88.1.		
University of Arkansas (1910) 85, 88.2; (1911) 75.9, 75.9, 77.7, 78.1, 78.9, 80, 80.8, 82.2, 82.6, 82.6, 82.9, 83.2, 83.2, 85.4, 85.6, 85.8, 85.9, 86.1, 86.9, 87.7, 89.6.		
Atlanta College of Physicians and Surgeons	(1909)	79.3
Illinois Medical College	(1905)	76.2
College of Physicians and Surgeons, Chicago	(1904)	86.3
Bennett Medical College	(1911)	83.9
University of Louisville	(1910)	76.7
Tulane University of Louisiana (1904) 84.7; (1911) 77.2, 81.9, 82.9, 88.6, 87.6, 88.9.		
Baltimore Medical College	(1909)	77.6
Barnes Medical College	(1906)	83.2
Beaumont Hospital Medical College	(1893)	79.3
Kansas City Medical College	(1900)	80.5
Vanderbilt University (1903) 87; (1910) 92.3; (1911) 88.4, 89.4		
Meharry Medical College	(1911)	76.9, 80.7, 83.3, 85.6
Memphis Hospital Medical College (1904) 87.9, (1910) 81.2; (1911) 76.4, 77, 77.3, 88, 90.7.		
University of Tennessee	(1911)	78.2, 83.3
University of Virginia	(1909)	90.4

FAILED

College	Year Grad.	Per Cent.
College of Physicians and Surgeons, Little Rock (1910) 62.6, 66.2; (1911) 56.7, 66.3, 72.6.		
University of Louisville	(1910)	61.8
Barnes Medical College	(1910)	58.4
St. Louis Coll. of Phys. and Surgs. (1908) 71.8; (1910)		72.8
Memphis Hospital Medical College	(1910) 66.8; (1911)	67.6, 72.7
University of Tennessee	(1911)	74.6
Meharry Medical College	(1910) 69; (1911)	69.4, 72.9

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
University of Louisville	(1892)	Indiana
Tulane University of Louisiana	(1910)	Louisiana
St. Louis University	(1905)	Louisiana; (1909) Illinois
Barnes Medical College	(1905)	(1906) Illinois
University Medical College, Kansas City	(1899)	Texas
Columbus Medical College	(1888)	Ohio
Meharry Medical College	(1907)	Louisiana
Milwaukee Medical College	(1897)	Wisconsin

California April Report

Dr. Charles L. Tisdale, secretary of the California State Board of Medical Examiners, reports the written examination held at San Francisco, April 4-7, 1911. The number of subjects examined in was 10; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 72, of whom 48 passed, including 8 osteopaths, and 24 failed, including 4 osteopaths. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Cooper Medical College	(1910)	83.9
Hahnemann Med. College of the Pacific	(1909)	75
College of Physicians and Surgeons, San Francisco (1907) (1909) 75, 77.7, 82.5.		80.6;
Atlanta College of Physicians and Surgeons	(1903)	75
Northwestern University Med. School (1883) 89.1; (1899)		89.1
Hahnemann Medical College and Hosp., Chicago	(1894)	85.8
Rush Medical College (1887) 87.6; (1893) 75.2; (1899) (1902) 80.6; (1903) 83.4; (1909) 90.2.		77.3;
College of Phys. and Surgs., Chicago (1886) 87.7; (1906)		81.9
Indiana University	(1910)	78.4
Medical School of Maine	(1908)	81.7
Johns Hopkins University	(1906)	89.3
Harvard University Medical School	(1894)	90.7
University of Michigan, Homeopathic College	(1901)	96
University of Minnesota, College of Med. and Surg.	(1904)	81.3
Missouri Medical College	(1889)	92
St. Louis University	(1904)	88
Columbia University, Colleg of Phys. and Surgs.	(1909)	87.6
Bellevue Hospital Medical College	(1892)	82
Long Island College Hospital	(1910)	84.4
Medical College of Ohio	(1883) 87.3; (1896)	86
Western Reserve University	(1870)	90
Eclectic Medical College, Cincinnati	(1885)	77
University of Pennsylvania	(1899) 78.2; (1908)	93
Jefferson Medical College	(1909)	81.6
Medico-Chirurgical College, Philadelphia	(1906)	88.9
Manitoba Medical College	(1894)	86.6
McGill University, Montreal, Quebec	(1903)	89
University of Palermo, Italy	(1900)	75

FAILED

College	Year Grad.	Per Cent.
College of Physicians and Surgeons, Los Angeles	(1908)	71.4
Cooper Medical College	(1910) 65.4; (1910)	70.5
California Eclectic Medical College	(1906)	67.8
College of Physicians and Surgeons, San Francisco (1907) (1910) 71.5.		55.1;
Medical College of Indiana	(1902)	71.3
University of Iowa, College of Medicine	(1901)	66.8
College of Phys. and Surg., Keokuk (1881) 62.8; (1887)		71.4
Louisville National Medical College	(1889)	43.2
University of Michigan, Homeopathic College	(1892)	67.7
American Medical College, St. Louis	(1898)	56.8
St. Louis University	(1906)	72.3
Ensworth Medical College	(1908)	64.3
Cleveland College of Physicians and Surgeons	(1884)	74.5
Starling Medical College	(1882)	*81.0
Medical College of Ohio	(1895)	29.8
Pulte Medical College	(1894)	70.8
Tokio Medical College, Japan	(1907)	64

* Passed on account of years of practice.

Wisconsin May Reciprocity Report

Dr. John M. Beffel, secretary of the Wisconsin State Board of Medical Examiners, reports that at the meeting held at Milwaukee, May 24-26, 1911, twenty-one candidates were licensed through reciprocity. The following colleges were represented:

College	Year Grad.	Reciprocity with
College of Physicians and Surgeons, Chicago (1893) (2, 1909) (1910) Illinois.		Minnesota;
American Medical Missionary College	(1906)	Michigan
Northwestern University Medical School (1907)	(1908)	(2, 1909) Illinois.
Chicago Homeopathic Medical College	(1885)	Washington
College of Physicians and Surgeons, Baltimore	(1882)	Washington
Harvard University Medical School	(1909)	Maryland
University of Michigan, College of Medicine (1887) (1904) Washington.	(1880)	Michigan;
University of Minnesota, Homeopathic College	(1889)	Washington
Barnes Medical College	(1908)	Tennessee
Omaha Medical College	(1888)	Washington
University and Bellevue Hosp. Medical College	(1903)	New York
McGill University, Montreal, Quebec	(1898)	Washington
Royal University of Naples, Italy	(1882)	Illinois

PROCEEDINGS OF THE LOS ANGELES SESSION

MINUTES OF THE SIXTY-SECOND ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT LOS ANGELES, CAL., JUNE 26-30, 1911

HOUSE OF DELEGATES

(Continued from July 1, page 88)

Third Meeting—Tuesday Morning, June 27

The House of Delegates met at 2 p. m. and was called to order by the President, Dr. John B. Murphy, Chicago.

The secretary called the roll, and there was a quorum present.

The minutes of the previous session were read and approved.

The President appointed Dr. J. E. Tuckerman, Ohio, as a member of the Committee on Credentials, and Dr. D. Chester Brown, Connecticut, Chairman.

Report of the Reference Committee on Medical Education

Dr. H. D. Arnold, Massachusetts, Chairman, presented the report of the Reference Committee on Medical Education, as follows:

The Reference Committee on Medical Education begs leave to submit the following report:

On behalf of the House of Delegates, the committee extends congratulations to the Council on Medical Education on the continuance of the excellent work of previous years. We believe that this work constitutes one of the most important and successful forms of activity that the Association has undertaken, and that the good results in improvements in medical education, which are becoming more and more evident, are permanent in character. We shall never go back to the lower standards that were prevalent a few years ago.

The recognition of the excellence of the work of our Council on Medical Education by Dr. Eijkmann of the Hague, as a powerful international influence in raising standards of education, is not only gratifying to the Council but should be a matter in which every member of the American Medical Association takes pride.

The charts included in the report of the Council show in a graphic and convincing way the really remarkable progress that has been made during the past seven years in raising the standards of medical education in this country. While the Council modestly disclaims any credit beyond the obvious fact that it had "an extensive influence" in this upward movement, your committee cannot regard as a mere coincidence the fact that practically all of this improvement has come since the Council began work seven years ago.

We believe that the work of the Council has been the most important single factor in accomplishing these results. We are confident that still further improvement will result from a continuance of this work, and that in the near future we shall have still fewer medical schools in the United States, but that these schools will be stronger and better and that their standards will be higher.

The most reassuring feature of these statistics is shown in Chart 5 of the Council's report, which indicates that, whereas seven years ago less than 5 per cent. of all medical students were enrolled in the schools which required one or more years of college preparatory work, in the year just closed fully one-third of all medical students were enrolled in schools of this type. A further study of the charts shows that the increase in the number of students enrolled in these high grade schools has practically kept pace with the increase in number of such schools. In other words, the intelligent medical student has been quick to take advantage of opportunities offered for a better preparation for his life work. We believe that this will be true of a larger and larger proportion of medical students, and that schools which maintain low standards must be content to cater only for the poorly prepared or the less intelligent students.

We therefore recommend that the House of Delegates approve of the continuance of the work of the Council on Medical Education along all the lines of activity that it has undertaken.

We recommend that the Council be authorized to conduct a third thorough inspection of the medical schools of this country as soon as the Council deems such an inspection wise, and that it be requested to report the results to the House of Delegates as soon as the inspection can be sutisfactorily completed. We believe that this is a matter of justice to the medical schools—especially to those which are using their best endeavors to improve their methods of teaching.

We most heartily endorse the suggestions of the Council that it is desirable to invite Mr. Frederick G. Hallet, the secretary of the Conjoint Board of London, to attend the next conference held under the auspices of the Council on Medical Education, in order that he may enlighten us and the medical examining boards in regard to the way in which a practical examination of candidates for licensure is so satisfactorily conducted in Great Britain.

We therefore recommend to the House of Delegates that they request the Board of Trustees to authorize such expense as may be necessary to accomplish this object.

Since it is clear that publicity is the most powerful agent that the Council has at its disposal, and since it is so clear that many desirable improvements in legislation governing medical education and licensure will depend on a strong public sentiment in their favor, it is important that the American Medical Association should use all proper means to lay before the public such information as will enable it to understand the need of such reforms.

We have in the methods of the Council on Health and Public Instruction a proper and effective way of reaching the general public. The Council on Medical Education has already cooperated with the other Council to some extent by furnishing it with information in this line, which it can send out to the general public.

Your committee believes that this cooperative work by these two councils should be systematically developed and that by this means the Association can accomplish much for the public welfare. It should be our aim to make the public understand that this work is really undertaken for their welfare, and the committee is also of the opinion that it is important to emphasize the good work that has already been done, and the improvements that are constantly being made, as well as noting the shortcomings of medical schools, the registration boards, and medical legislation.

The chief new feature advocated by the Council on Medical Education in its report this year is the desirability of a fifth year of instruction in the medical school, to be spent as an intern at a suitable hospital or in approved laboratory work. Your committee is heartily in sympathy with the idea that such extra experience is really essential to a satisfactory preparation of the student for his independent professional work, whatever that line of work may be. We believe that this idea should be held out to the medical schools as an aim toward which they should work as fast as circumstances permit, but we also agree with the words of the Chairman of the Council that "this requirement cannot immediately be put into effect throughout the whole country." Inasmuch, however, as a large proportion of medical students are already taking this extra year of practical work on their own initiative, the time cannot be far distant when the medical schools must officially recognize the desirability of this step by incorporating it as a part of the course. In the meantime the schools should urge all students to secure this extra experience, and this will pave the way for the adoption of this measure as a requirement. We believe that this matter may well be the subject of further study and report on the part of the Council on Medical Education.

In closing, the committee would bring to the attention of the House of Delegates still one more matter in which cooperation of two of the councils of the Association has been going on and has promise of valuable results. We refer to the work done by the Council on Pharmacy and Chemistry in reference to simplifying the requirements of instruction about drugs in the Pharmacopeia and a corresponding change in the state board examinations. Everybody admits that valuable time is wasted in giving instruction about useless drugs, because they appear in the Pharmacopeia and because the state licensing boards are liable to ask about them. We believe that our two councils working in cooperation can best devise a wise solution of this problem, and that the House of Delegates should express its approval of what is being done.

H. D. Arnold, Chairman.

On motion, the report was adopted.

Report of Reference Committee on Legislation and Political Action

Dr. G. B. Young, U. S. P. H. and M.-H. S., read the report of the Reference Committee on Legislation and Political Action, as follows:

ACTION ON REPORT OF COMMITTEE ON NATIONAL DEPARTMENT OF HEALTH

Your committee recommends that the report of the Committee on National Department of Health be accepted and the committee be discharged, and that further action in the matter be referred to the Council on Health and Public Instruction.

RESOLUTION ON AMENDING FOOD AND DRUGS ACT

Your committee, having considered the resolutions relating to the amendment of the national Food and Drugs Act at the present session of Congress, respectfully recommends that the Secretary be instructed to telegraph a copy of the following resolutions to the President of the United States, the vice-president of the United States, and the speaker of the House of Representatives and to send a printed copy of the same to each member of the United States Senate and House of Representatives.

WHEREAS, By a recent decision of the Supreme Court of the United States it has been decided that the national Food and Drugs Act enacted by Congress in June, 1906, contains in its present form nothing to prevent the printing on the labels of packages false and misleading statements in regard to the value and therapeutic action of their contents; and

WHEREAS, We believe that this decision is opposed to the intent of Congress enacting the said measure; and

WHEREAS, We are persuaded that this feature of the law is of equal importance with its other provisions,

Resolved, (1) That the House of Delegates of the American Medical Association in the annual convention assembled at Los Angeles, California, June 26, 1911, respectfully petitions Congress to amend the national Food and Drugs Act at the present session so that false statements of any kind appearing on the labels, circulars, etc., of foods and drugs be made unlawful.

Resolved, (2) That we heartily commend the act of the President in sending a special message to Congress urging on it immediate action in this matter.

REPORT OF COUNCIL ON HEALTH AND PUBLIC INSTRUCTION

Your committee has considered the report of the Council on Health and Public Instruction together with the reports of its subcommittees as printed in the Handbook and the supplemental report submitted by the Chairman of the Council, and reports as follows: We respectfully recommend the approval by the House of Delegates of the plans for the conduct of the work of the Council and for the extension of its activities as outlined in said reports. We earnestly recommend to the members of the House of Delegates and of the Association at large a careful perusal of the above mentioned reports as printed in the Handbook,* in order that each one may be in a position to cooperate intelligently in the furtherance of the great work undertaken.

Respectfully submitted,

J. N. HURTY, Chairman,
W. C. GORGAS,
B. M. CAPLES,
G. B. YOUNG.

At the conclusion of the reading of the report, Dr. W. C. Woodward, District of Columbia, said: In so far as relates to that portion of the report which pertains to a special committee appointed to consider the establishment of a national department of health, I move that consideration of the same be postponed until the next meeting of the House of Delegates, so that the matter can be considered by the Council. Seconded.

The motion was discussed by Drs. Young, Cantrell and Woodward, after which the motion was put and carried.

The other sections of the report were then read by the Secretary, and adopted section by section.

Report of Reference Committee on Hygiene and Public Health

Dr. Alexander Marcy, New Jersey, Chairman, presented the report of the Reference Committee on Hygiene and Public Health, as follows:

Your Reference Committee on Hygiene and Public Health begs leave to report having had under consideration the report of the Committee on Nomenclature and Classification of Diseases and recommends the adoption of the report and the continuance of the committee with such additions as may be necessary to complete its full membership, and that said committee be instructed to continue its work in cooperation with other organizations working along the same lines, and that such classification as they may adopt, together with the international classification and causes of death, be published and supplied to the members of the American Medical Association.

We further recommend that in case of a vacancy on this committee such vacancy be filled by a member especially interested in tropical diseases.

ALEXANDER MARCY, JR., Chairman.

On motion, the report was adopted. The nomenclature report referred to was as follows:

Report of the Committee on Nomenclature and Classification of Diseases

To the Members of the House of Delegates of the American Medical Association:

Your Committee on the Nomenclature and Classification of Diseases begs leave to submit the following report:

Up to a time shortly preceding the rendering of our last report, at the meeting of 1910, our work was hampered by the necessity of waiting for the appearance of the revised version of the International Classification of Causes of Death, for we had been instructed to have due regard for that classification; indeed, early in our labors we were again admonished to follow it closely. This resolution, however, was overlooked by us, and time soon made it clear, for reasons which need not now be set forth, that the resolution could not be followed literally.

We had been very favorably impressed with the Bellevue Hospital Nomenclature of Diseases and Conditions, prepared by a committee consisting of Dr. Robert J. Carlisle, Dr. Warren Coleman, Dr. Thomas A. Smith and Dr. Edmund L. Dow, which first appeared in 1903, and the appearance of a revision of that work, early in 1909, led us to examine it still more closely. It was not long before a second revision was begun, and our chairman was very courteously invited to observe the progress of the work. This second revision is not yet published, but is in press and will probably be out some weeks before the Los Angeles meeting. The close examination that we have been able to give it leads us to the opinion that, from the clinical point of view, it is superior to any other nomenclature with which we are acquainted and to any which we ourselves could prepare within a reasonable length of time. Moreover, it is very well known and many hospitals have either adopted it or indicated a readiness to study it further, with a view to its probable adoption. These hospitals include three in California, one in Colorado, two in Connecticut, seven in Illinois, two in Louisiana, one in Maryland, two in Massachusetts, four in Michigan, two in Missouri, three in New Jersey, thirty-four in New York, thirteen in Pennsylvania, one in Tennessee, one in Texas, three in Utah, one in Australia, one in Canada, one in Denmark, one in England, one in Italy, and one in Switzerland. Men do not take up with systems of nomenclature for light reading; we must therefore conclude that the Bellevue nomenclature has very favorably impressed our confrères in various localities. We recommend that it be made a part of whatever publication on the subject of the nomenclature and classification of diseases the American Medical Association may decide to issue—and the prominent part, by reason of its clinical character.

It will be well, we think, to publish also a Latin list, if only for purposes of international correspondence. Such a list as has lately been prepared by Surgeon Charles N. Fiske, of the navy, and is published in the *United States Naval Medical Bulletin*, April, 1911, would be excellent for the purpose, though a little editorial work would be required to make it conform in minor details to the Bellevue nomenclature.

As a matter of course, we recommend the adoption of the International Classification of Causes of Death. It seems to us in need of further revision, but for that we must wait until 1919. Meantime, the excellent manual made of its expanded list by Dr. Cressy L. Wilbur, chief statistician of the Division of Vital Statistics of the Bureau of the Census, makes a list which should figure prominently in our publication if we issue one. This, too, is not yet off the press. It is of value from many points of view, but will be particularly of service to health officials who have to determine what is meant by certain blind returns.

* EDITOR'S NOTE: To avoid any misunderstanding, it is here stated that there are no copies of this "Handbook for the House of Delegates" for general distribution. The full text of the report here referred to, of the Council on Health and Public Instruction, has already been published in THE JOURNAL, July 1, in the official minutes of the proceedings of the first day's meetings of the House of Delegates.—ED.

There is a great awakening to the importance of nomenclature and classification, and it may be well for the American Medical Association to provide for cooperative work with the profession in other countries, to the end that we may eventually have a uniform nomenclature and classification.

Very respectfully,

FRANK P. FOSTER, Chairman.
W. A. N. DORLAND.
VICTOR C. VAUGHAN.
ALEXANDER DUANE.
J. CHALMERS DA COSTA.

Report of the Committee on Amendments to Constitution and By-Laws

Dr. Arthur T. McCormack, Kentucky, Chairman, presented the report of the Reference Committee on Amendments to the Constitution and By-Laws, as follows:

In accordance with the recommendation in the President's address, your committee recommends as a substitute for the amendment to Chapter IX, Section 4, of the By-Laws the following:

Section 4. JUDICIAL COUNCIL. The Judicial Council shall consist of five members, who shall be nominated by the President and elected by the House of Delegates. At the annual session in 1911 one member shall be elected to serve for five years, one for four years, one for three years, one for two years, and one for one year, and thereafter one member shall be elected each year to serve for five years. It shall select a chairman from its membership. The Secretary of the Association shall be, *ex officio*, Secretary of the Council. It shall expend money and contract debts only on the authority of the Board of Trustees. It shall keep a permanent record of its actions at its office which shall be at the headquarters of the Association. It shall make an annual report of its decisions and the results of its investigations to the House of Delegates.

The judicial power of the Association shall be vested in the Judicial Council, the decisions of which shall be final, and shall extend (1) to all cases arising under this Constitution and By-Laws; (2) to all controversies to which the American Medical Association is a party, to controversies (3) between two or more constituent associations; (4) between a constituent association and members of another constituent association; (5) between members of different constituent associations.

In all cases in which the American Medical Association or one of its constituent associations is a party the Judicial Council shall have original jurisdiction. In all other cases before mentioned the Judicial Council shall have appellate jurisdiction, both as to law and fact, with such exception and under such regulations as it may adopt and publish in THE JOURNAL, provided that such regulations must be approved by the next ensuing session of the House of Delegates, and be officially certified to each constituent association. The Judicial Council may investigate professional conditions and all matters pertaining to the relations of physicians to one another and to the public and shall make such recommendations to the House of Delegates and the constituent associations as it deems necessary.

[EDITOR'S NOTE: Although the above was adopted, it was later reconsidered and changed as will be seen on reference to Wednesday's minutes.—ED.]

COMMITTEE ON AMENDMENTS TO CONSTITUTION AND BY-LAWS

Your committee, to which was referred the report of the Secretary in regard to amendments to those sections of the By-Laws referring to membership, respectfully reports recommending the following amendments:

Add to Chapter I, Section 7, the following:

and representative teachers, students of sciences allied to medicine, resident in the United States and not eligible to regular membership.

Section 7.—Associate members shall enjoy the same privileges as regular members, and shall be subject to the same conditions.

To strike out in Chapter VI, Section 4, the word "and" from the last clause, and to add to the section the following:

and from representative teachers and students of sciences allied to medicine by the officers of a section.

To add to Chapter XI a new Section 9 as follows:

Section 9. ASSOCIATE MEMBERS. The officers of a section may nominate for associate membership representative teachers and students of sciences allied to medicine, resident in the United States, not eligible to regular membership. The secretary shall immediately notify the Secretary of the Association of such nominations.

We recommend that the other sections shall be renumbered to correspond.

On motion the report was adopted section by section.

Report of Reference Committees on Reports of Officers

Dr. George W. Guthrie, Pennsylvania, Chairman, read the report of the Reference Committee on Reports of Officers, which, on motion, was adopted. The report was as follows:

Your Reference Committee on Reports of Officers begs leave to offer the following report:

I. THE PRESIDENT'S REPORT

Red Cross.—The Committee concurs in the recommendation of the President, concerning the request of the National Red Cross for the appointment of a committee of this House to consult and advise with that organization. It is believed to be most appropriate and desirable that this Association should give its approval and assistance to that body in times of national disaster and through its local organizations should select men of probity and recognized professional competence to be the agents through whom the beneficence of the nation is bestowed. It may be also that this cooperation may lead in the event of the calamity of a great war to a wide field of patriotic usefulness for the American Medical Association. It is recommended, therefore, that the President be authorized to appoint a committee of five to consult and to advise with a committee of the National Red Cross for the purpose above stated, and to report at the next annual meeting such scheme of cooperation as may be agreed on. It is further recommended that the committee be provided with funds for the necessary expenses of such meetings.

Canal Celebration.—Your committee heartily seconds the suggestions of the President concerning the completion of the Panama Canal, and recommends that a committee of seven be appointed to consider the best mode of commemorating the sanitary work and achievements of this wonderful construction; and further that the Board of Trustees be requested to make the necessary appropriation of funds to meet the wants of this committee.

II. THE SECRETARY'S REPORT

Associate Members.—The committee approves the secretary's recommendation concerning associate members, and advises that the proposed amendment to the By-Laws, which appears on page 30 of his report in the Hand-Book, be referred to the Committee on Amendments to the Constitution and By-Laws.

Uniform Membership.—The committee also recommends that the committee on Uniform Regulation of Membership be recreated and empowered and directed to perfect a plan for the uniform regulation and transfer of membership.

Judicial Council.—The committee refrains from considering the matter of recreating the Judicial Council as a permanent body, as this matter is already in the hands of the Reference Committee on Constitution and By-Laws by the action taken in the House yesterday. To this committee also should be referred the proposed amendment to Chapter IX, Section 5, of the By-Laws, whereby the word "organization" would be eliminated.

III. THE REPORT OF THE BOARD OF TRUSTEES

Membership.—Concerning the intricate problems of membership in the Association, referred to in this report, your Committee recommends that the subject be made a matter of special consideration by the House of Delegates, either in committee of the whole, or otherwise as may be determined by this body.

Duplicate Journals.—The committee recommends that the matter of duplicate copies of THE JOURNAL received by two or more members of the same family or firm be referred to the Committee on Constitution and By-Laws.

Judicial Council.—The suggestions of the Board as to the necessity for a tribunal which should be empowered to give final judgment in all matters affecting the constitutional rights of individuals and of constituent societies, also the matter of principle affecting the interests of the Association with the power of initiative, when necessary, are all met by the proposed amendment to the By-Laws recreating the Judicial Council, now in the hands of the Reference Committee on Constitution and By-Laws.

Button.—The Committee will report a recommendation regarding the Association button at a later meeting.

On motion, the report was adopted.

Report of Reference Committee on Miscellaneous Business

Dr. Hubert Work, Colorado, Chairman, read the report of the Reference Committee on Miscellaneous Business, which was adopted. The report is as follows:

Your Reference Committee on Miscellaneous Business respectfully recommends that your Committee on Memorial to Medical Officers who Died in the Civil War be continued, with the same privileges, instructions and appropriation authorized by the House of Delegates at the Atlantic City session in 1909.

Concerning the Committee on Anesthesia, we respectfully recommend that, inasmuch as nothing has been done for a year past, the chairman having resigned and no report having

been submitted to the House at this session, that a new committee be appointed by the President to prosecute the important investigations properly, a part of the duties of this committee.

Report of the Committee on Memorial to Medical Officers Who Died in the Civil War

To the Members of the House of Delegates of the American Medical Association:

By reference to the official minutes of the Sixty-First Annual Session held at St. Louis, June, 1910, it will be observed that the House (page 35, Proceedings of the House of Delegates, 1910) adopted the report of your committee. In completing the personnel of the Central Committee of five by selecting, as noted in a previous report, an ex-surgeon from the volunteer service of the Union Army and one from the Confederate service, your committee has nominated to President Welch Dr. W. W. Keen of Philadelphia from the Union Army and Dr. G. B. Thornton of Memphis, Tenn., ex-president of the Association of Medical Officers of the Army and Navy of the Confederacy, who have been appointed: they meet the requirements by being "members of the A. M. A."

In exercising the power granted your central committee to appoint on the general committee one surgeon from the regular army, the navy, and the U. S. P. H. and M.-H. Service, they have appointed the surgeon-generals of those respective departments, viz., Surgeon-General George H. Torney of the U. S. Army, Surgeon-General Charles F. Stokes of the U. S. Navy, and Surgeon-General Walter Wyman of the U. S. P. H. and M.-H. Service., and their successors.

The self-imposed task of the central committee to appoint a general committee of one from each state and the District of Columbia with the view of geographically distributing the interests in this commendable undertaking, and if thought judicious influencing, eventually, the several state legislatures to contribute materially toward the object in view has proved to be difficult on account of the forty-six years intervening since the close of the war, and from the desire to place on that committee ex-surgeons who are, also, members of the American Medical Association. However, your committee is slowly compiling a satisfactory list from different sources, especially from records in the officers of the surgeon-generals of the U. S. Army and U. S. Navy, and, lately, by the assistance of our enthusiastic and useful colleague, Surgeon G. B. Thornton of Memphis, Tenn. Your committee expects to complete the list this year. To attain this end they request that members of this House of Delegates, from each state, suggest at least three names of volunteer ex-surgeons of the federal or the confederate army or navy who are members of the American Medical Association, giving the service and address, sending the same to our secretary, Dr. G. Lane Taneyhill, 1103 Madison Avenue, Baltimore, from which list, with other names, the committee may appoint one from each state. In case, at this late date, such names be not available in certain states, your committee requests the names of three other members of the American Medical Association who would take an active interest in this project.

It is purposed, in the near future, to appeal to the several state medical societies for their normal influence and material help in the erection of this monument, and, perhaps subsequently to Congress; and, from these sources your committee has reason to believe they will receive loyal endorsement and the desired material aid.

The original proposition of our colleague, Dr. S. Weir Mitchell, for the erection of this monument has been heartily endorsed by the president of the Association of Surgeons of the Army and Navy of the Confederacy at a meeting held at Mobile, Ala., April, 1910, after reading the recommendation of President W. C. Gorgas at our Atlantic City meeting, thus happily proclaiming to Christian civilization that, as all surgeons in our Civil War were recognized by the articles of war as non-combatants, and as they, when occasion required, gave equal service to the wounded of both sides—to-day, their survivors and admirers, by the erection of this memorial monument may demonstrate their appreciation of the noble services of those who gave up their lives in the performance of a duty to a common humanity.

Your committee respectfully recommends that it be continued, with the same privileges, instructions and appropriation authorized by the house at the Atlantic City meeting in 1909.

Respectfully submitted,

WILLIAM C. GORGAS, Chairman.
S. WEIR MITCHELL.
G. LANE TANEYHILL, Secretary.
W. W. KEEN.
G. B. THORNTON.

Dr. D. S. Fairchild, Iowa, presented an amendment to the By-Laws:

I move that Chapter VII, Section 3, of the By-Laws relating to the duties of Secretary be amended by adding after the words "Board of Trustees," the words "or the manager of THE JOURNAL."

The amendment was referred to the Reference Committee on Amendments to the Constitution and By-Laws.

Dr. D. Chester Brown, Connecticut, Chairman, Committee on Credentials, presented a supplementary report of that committee.

Dr. Edward Jackson, Colorado, offered the following resolution which was adopted:

Resolved, That the Reference Committee on Sections and Section Work is hereby authorized to receive direct from the sections matters demanding attention from the House of Delegates, to consider the same and to report their recommendations thereon to the session of the House on Thursday.

Resolutions on Tariff on Instruments

Dr. R. M. Funkhauser, Missouri, presented the following preambles and resolution, which had been adopted by the St. Louis Medical Society, June 10, 1911. They were referred to the Reference Committee on Legislation and Political Action:

WHEREAS, There is an import duty of 45 per cent. on all manufactured metalware, including surgical and optical instruments and other scientific apparatus, and a duty of 60 per cent. on blown glassware, and

WHEREAS, In some cases certain instruments and apparatus are not manufactured in the United States and have to be imported, and

WHEREAS, Physicians, chemists and other scientists frequently have occasion to use such imported apparatus in their professions, and

WHEREAS, A committee has recently been appointed by Congress to revise the tariff; therefore, be it

Resolved, That the St. Louis Medical Society instructs its delegates to the American Medical Association to bring the matter of a reduction in the tariff on imported surgical and optical instruments and glassware and scientific books written in the English language, to the attention of the American Medical Association at the Los Angeles meeting. That Association can then take the matter up with other scientific bodies and by a proper presentation of the facts in the case to the committee on revision of the tariff of the national legislature, possibly secure a reduction of the duty on such imported apparatus.

Section on Hospitals Proposed

Dr. B. M. Caples, Wisconsin, presented the following, which was referred to the Reference Committee on Sections and Section Work:

One of the most conspicuous pieces of work that has been achieved by the medical profession in many years, and one that promises to be of far-reaching value to mankind everywhere, is that now in the hands of your Council on Medical Education, that looks primarily to a betterment in the standards of medical education.

Medical education to-day is so inextricably involved with hospital work that no comprehensive progress can be made without the hospitals are carried forward by the side of the medical schools. An expression of this fact is voiced in the last report of the Council on Medical Education (page 20 of the House of Delegates Proceedings for 1911). In this report Dr. Bevan and his committee speak as follows:

"Finally, it is of great importance that closer relations be brought about between hospitals and medical schools, and that those in charge of hospitals should recognize the educational function of the hospital. Not only is a hospital made more influential by a close association in a teaching capacity with some university medical school, but also its patients are sure to receive better attention, and, furthermore, the hospital will be doing a service to the community by helping to develop capable, well-trained physicians."

The Committee has not yet answered its own requirement, and in this petition for the creation of a Hospital Section of the Association, an answer to their demand is attempted.

But there seems no likelihood of there ever being raised any influence that will look to the betterment of hospital conditions, to the raising of hospital standards in equipment and efficiency, unless the work shall be undertaken by the American Medical Association.

Many hospital superintendents know how to do things better than they are doing them, but are limited in their power for good. Efficiency can be established in some such way as is now being done in the medical schools of the country, when that time comes and when that work of standardization is accomplished, hospital boards must awaken to the realization of the actual standing of their institutions. If a Board

of Trustees finds that its institution is classified third, and that there is another institution in the same community classified second or first, a spirit of competition will be aroused, to the end that all of the hospitals in the community must be improved. But if this Association would take the initiative so that proper courses of study could be laid out for nurses who are so anxious to learn the things that they ought to know, then the training schools of the country would have something on which to base a correct classification of their courses of study and the dictum of this Association would be followed almost unanimously, to the end of better conditions in the nursing profession.

Medical men throughout the country are at the mercy of conditions which we might call individualism in the treatment of their patients. No physician can hope to have adequate facilities to care for his obscure patients in the home of the patient. These facilities are expensive, not always quickly obtainable, so that in obscure diseases where their diagnosis or the treatment requires something more than bedside observation and internal medication, patients must of necessity be sent to the hospitals where there are facilities for taking care of them. Therefore, it is one of the most vital interests of the medical profession to foster and guide the efficiency of hospitals.

These hospital facilities are highly technical in character, and require special training and skill of a very special order, for their proper employment and trained assistants cost money and hospitals are too often impoverished and parsimonious, and there must be some force behind them that will set standards by which they can be made to see their deficiencies, and that will inculcate a spirit of competition—therefore standards for hospital efficiency and training.

I move that a Section on Hospitals be established, and that this matter be referred to the Reference Committee on Sections and Section Work.

The report was so referred.

Associate Members Elected

Dr. Walter L. Bierring, Iowa, presented the following from the Section on Pathology and Physiology:

The following representative teachers, students of sciences allied to medicine resident in the United States and not eligible to regular membership, are recommended by the officers of the Section on Pathology and Physiology for election to associate membership in the American Medical Association by the House of Delegates:

Alsberg, Carl L., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C.
Beebe, S. P., Cornell University Medical College, Loomis Laboratory, 414 East 26th Street, New York.
Carrel, Alexis, Rockefeller Institute, 66th Street and Avenue A, New York.
Gies, William J., Department of Biologic Chemistry, Columbia University, New York.
Jackson, Dennis E., Washington University Medical School, 1906 Locust Street, St. Louis.
Maxwell, S. S., Department of Physiology, University of California, Berkeley, Cal.
Meigs, Edward B., Wistar Institute, Philadelphia.
Mendel, Lafayette B., Professor of Physiologic Chemistry, Yale University, New Haven, Conn.
Murlin, J. R., First Avenue and 26th Street, Cornell University Medical School, New York.
Rockwood, E. W., Department of Chemistry, State University of Iowa, Iowa City.
Salant, William, Bureau of Chemistry, Washington, D. C.
Shaffer, Philip A., Washington University Medical School, 1806 Locust Street, St. Louis.
Sheldon, R. E., Anatomic Laboratory, University of Pittsburgh, Pittsburgh.
Simpson, Sutherland, Department of Physiology and Biochemistry, Cornell University Medical College, Ithaca, N. Y.
Snyder, Charles D., 1412 Bolton Street, Baltimore.
Stookey, L. B., Physiologic Laboratory, University of Southern California, Los Angeles.
Underhill, Frank Pell, Assistant Professor Physiologic Chemistry, Yale University, New Haven, Conn.
Voegtlin, C., Department of Pharmacology, Johns Hopkins University, Washington and Monument Streets, Baltimore.
Pearce, Richard M., Department of Pathology, University of Pennsylvania, Philadelphia.

YANDELL HENDERSON, Chairman.
LEO LOEB, Secretary.

On motion the Secretary was directed to cast a ballot for the House, which he did and the above-named candidates were elected to associate membership.

Application from Porto Rico Association

The following communication was presented by the Secretary:

The Secretary has received an application from the Medical Association of Porto Rico praying that it may be received as a constituent association of this organization, which is presented to this House for its approval.

It was moved and seconded that this application be received and referred to the Judicial Council.

Judicial Council Appointed

The President then appointed the following as the Judicial Council: Drs. Frank Billings, Illinois; James E. Moore, Minnesota; A. B. Cooke, Tennessee; Alexander Lambert, New York; and Hubert Work, Colorado.

Proposed Authorized Text-Books

Dr. Arthur T. McCormack, Kentucky, offered the following preamble and resolution:

WHEREAS, An unendurable tax is being levied on the profession by some of the great publishing houses by means of the many volumed systems of text-books in the various departments of medicine, the first volumes of which are often out of date before the last ones are received, and many of them so padded as to require time to search out the grain from the chaff of more value than the cost of the books;

Resolved, That the Board of Trustees be hereby requested during the coming year to consider the practicability of asking any or all of the sections to select a competent author to prepare a one-volume text-book on the branch to which such section relates, to be published by the Association and sold to the profession at cost direct or through the county societies.

This preamble and resolution were referred to the Board of Trustees.

Another Proposal for Section on Physicotherapy

Dr. P. S. Mitchell, Kansas, stated that in view of the fact that there is a great deal of work being done in drugless therapy, and that this is being done at random by electricity and various things of that sort, he would move that a section on this subject be established.

The resolution was referred to the Reference Committee on Sections and Section Work.

Dr. A. T. McCormack, Kentucky, asked the privilege of referring to the Reference Committee on Legislation and Political Action a motion to be drawn in conformity with a resolution passed in the general session this morning endorsing the Owen bill, which request was granted by the House.

On motion, the House of Delegates then adjourned until 2 p. m. Thursday.

Fourth Meeting—Wednesday Afternoon, June 28

The House of Delegates met at 2 p. m., pursuant to a call issued by the President, which call had been published in bold type on every page of the *American Medical Association Bulletin* issued early in the morning of June 28.

In the absence of the President, the First Vice-President, Dr. E. E. Montgomery, occupied the chair.

Dr. D. Chester Brown, Connecticut, Chairman, presented a supplementary report of the Committee on Credentials, and announced that 130 delegates had registered.

The Secretary called the roll, and seventy-five members responded.

The minutes of the previous session were read and approved.

Report of Reference Committee on Sections

Dr. Walter L. Bierring, Iowa, Chairman, read the report of the Reference Committee on Sections and Section Work, as follows:

ASSOCIATE MEMBER ELECTED

The officers of the Section on Pharmacology and Therapeutics recommend for election by the House of Delegates to associate membership, Julius A. Koch, Pittsburg College of Pharmacy, Pittsburg, Pa. The Committee also approves the following recommendations, which are transmitted from that Section:

PROPOSAL TO EXAMINE RADIO-ACTIVE WATERS

Owing to the importance attributed to radio-active mineral waters in the treatment of gouty and other affections by competent European observers, and the special interest excited by the symposium on the subject at the thirty-second Balneologic Congress recently held in Berlin, the Section on

Pharmacology and Therapeutics of the American Medical Association requests the House of Delegates to suggest to the United States Government the advisability of investigating the radio-activity of the various mineral waters of the United States and publishing the results for the benefit of the medical profession.

TRADEMARKS AND PATENTS

2. WHEREAS, Cooperation between the medical and pharmaceutical professions is essential for the development of materia medica science and the advancement of the art of preparing medicines and applying the same to the treatment of the sick, and,

WHEREAS, Progress in materia medica science and in the pharmacologic and therapeutic arts is being hindered and cooperation between physicians, pharmacists and manufacturers engaged in the chemical and pharmacal industries prevented by product patents and the registration of names as trade-marks, which are afterward employed as generic or descriptive names of materia medica products; therefore, be it

Resolved, That we, the Section on Pharmacology and Therapeutics of the American Medical Association, representing the medical and pharmaceutical professions, do hereby request the House of Delegates to instruct the Council on Health and Public Instruction to draft amendments to the patent and trade-mark laws whereby no patents shall be granted on materia medica products, and the patents shall be limited to process and apparatus for manufacture, leaving the products themselves and the currently used names of the same free to science and commerce.

REPORT ON ADDRESS OF DELEGATION FROM AMERICAN PHARMACEUTICAL ASSOCIATION, DELIVERED BEFORE THE SECTION ON PHARMACOLOGY AND THERAPEUTICS

SECTION 1. RECOMMENDATION 1. Approved. The recommendation that the American Medical Association should undertake an educational propaganda in behalf of the United States Pharmacopeia and National Formulary is in harmony with the educational work of the American Medical Association.

RECOMMENDATION 2. The testing of the therapeutic claims made by manufacturers of alleged new remedies is in harmony with the work of the American Medical Association. Standing in the way of this work are the proprietary claims of the manufacturers. An educational campaign having as its object the teaching of the profession to use monopolized materia medica products is contrary to the altruistic principle on which ethical medical and pharmacal practice is founded. This cannot be accomplished without converting the educational machinery of the profession into a great advertising bureau for the exploitation of commercially controlled products. Therefore, the suggestion of the delegation, in so far as it relates to so-called proprietary products, is not approved. But the Section does approve the testing of new materia medica products which are free to science and commerce. Such test should include the work of experts in pharmacognosy, pharmacy, pharmaco-dynamics and therapy dynamics as well as the work of clinicians. Only by cooperation between experts in these various branches of pharmacologic practice can the science of the materia medica and the arts on which this science is dependent be properly developed. Furthermore, as therapeutic verdicts are dependent on the cooperative investigations of many competent observers extended over long periods of time and conducted under such varying conditions of environment as to eliminate errors due to differences in climate, race and social conditions, the work of a Council of the kind proposed would have to be conducted in cooperation with the educational institutions of medicine and pharmacy throughout the world to be of much value to the practitioners of the pharmacologic and therapeutic arts. The Section approves the suggestion of the American Pharmaceutical Association delegation within these limitations.

RECOMMENDATION 3. Approved. The suggestions are in harmony with the work of the American Medical Association and in line with plans now in process of development.

RECOMMENDATION 4. Approved. The proper selection, preservation, preparation, compounding and dispensing of medicine requires proper education and training not included in the courses of instruction given in medical schools, but comprised in the courses furnished by schools of pharmacy. Physicians who have not duly qualified as pharmacists are not trained to undertake the work of the pharmacist. However, as stated in the recommendation of the delegation, there are conditions existing which require physicians to dispense their own medicines. The Section, therefore, recommends that physicians shall, as far as possible, relegate to pharmacists the dispensing and limit themselves to the prescribing of medicines; also that pharmacists place themselves in position to act in cooperation with the medical profession by refraining from counter-prescribing, and recommending medicines for self-medication whether prepared by themselves or others.

SECTION 2.—RECOMMENDATION 1. The Section approves higher education on the part of pharmacists. Such education should include ethical instruction as well as instruction in the branches usually included in the courses given by colleges of pharmacy. The suggestion that a committee be appointed to draw up resolutions on this subject is approved.

RECOMMENDATION 2. The Section approves of the efforts to eliminate the sale of nostrums by pharmacists and others. The amendment suggested in relation to the Food and Drugs Act, making it a punishable crime to lie in advertising, would, if adopted, and put into operation, do much to control and limit the sale of this class of products.

RECOMMENDATION 3. The Section does not approve of substitution of one product for another, or one brand for another, without the knowledge and consent of the prescriber. Circumstances may sometimes arise when it is impossible to obtain consent beforehand. Under such circumstances the substitution of brands may be permissible but not the substitution of products. In such cases the prescriber should always be notified afterward and subsequent renewal of prescription be guided by the wishes of the prescriber.

SECTION 3.—The recommendation under this Section in regard to the revision of the U. S. Pharmacopeia, preventive medicine, and safeguarding the public health, the amplification of the materia medica, the fighting of fakes and fakers, drug adulteration, and the prescription commission evil, are in harmony with the work of the American Medical Association, and are therefore approved.

PROPOSED SECTION ON HOSPITALS

The Committee on Sections and Section Work, begs to report further on the following matters referred to it for consideration:

In regard to the request for the establishment of a Section on Hospitals, we submit that, at the St. Louis session of the Association a well signed petition was presented to the House of Delegates, asking for the creation of a Section on Hospitals. This petition was referred to the Committee on Sections and Section Work, and after brief consideration, was reported back with the recommendation that it lie over to give the proposers more time to demonstrate the need of such a section.

At this meeting of the Association, considerable additional information has been obtained by the Committee to indicate that there is a desire, expressed by letter and personal communications from many prominent members of the Association, to have a section that will constitute an avenue for the presentation of subjects pertaining to hospital work.

The Committee recognizes the particular function of the hospital as an educational influence, and the rôle it exerts as an instrument to promote the work of the physician and surgeon.

Furthermore, the hospital is an index of the standing and medical attainments of the men constituting its visiting and attending staffs.

The Committee recognizes further the great need for the standardizing of hospitals on a higher plane, consistent with the progress being made in all other lines of medical work, and is of the opinion that a betterment in hospital conditions can best be brought about through the influence of this Association; and,

THEREFORE, It recommends that a Section on Hospitals be established, and that the officers of this Section be appointed at this meeting to arrange a program for the session of 1912.

The Committee has also considered the request made at this meeting to establish a section on drugless therapeutics, but in view of the fact that a Section on Pharmacology and Therapeutics already exists, which is very comprehensive in its scope, covering the different therapeutic measures usually included under drugless therapy, the Committee reports adversely on the creation of a section on drugless therapeutics.

In this connection, the Committee begs to call to your attention that a Section on Genito-Urinary Diseases was created at the last meeting of the Association, and the officers have failed to provide a program for this meeting, so that the Committee feels it is in order to suggest an amendment to the By-Laws, that, whenever the officers of a Section fail to provide a program for the annual meeting, the Section should be discontinued.

It is further suggested that the Section on Dermatology, which also failed to have a program this year, could properly be combined with the Section on Genito-Urinary Diseases.

W. L. BIERRING,
SEALE HARRIS,
EDWARD JACKSON,
A. F. JONAS,
R. R. SMITH.

On motion, the report was accepted and the recommendations concurred in.

Report of Reference Committee on Constitution and By-Laws

Dr. Arthur T. McCormack, Kentucky, Chairman, presented the report of the Reference Committee on Amendments to the Constitution and By-Laws, as follows:

1. Your Committee, to whom the motion of Dr. Fairchild was referred, recommends that Chapter 7, Section 3, of the By-Laws relating to the duties of Secretary be amended by striking out the word "or" in the last clause and by adding after the words "Board of Trustees" the words "or the General Manager."

On motion, this section of the report was adopted.

2. Your Committee recommends that the amendments to the constitution, Articles 5, 8 and 12, printed on page 22 of the Handbook, be adopted; and that the proposed amendment to Article 9 be rejected.

On motion, this section of the report was adopted.

3. Dr. John B. Roberts, Pennsylvania, proposed the following amendments which the Committee approves:

Amend Article 11 of the Constitution by striking out in the first, second and third lines the words "by an equal assessment of not more than ten dollars annually on each of the members." (To lie over until next year.)

Amend Article 3 of the Constitution by striking out the entire paragraph and inserting after the title of the article the following:

All members in good standing of the component societies or their constituent branches shall be members of the American Medical Association.

Any member may become a fellow of the American Medical Association by making application on a prescribed form and fulfilling such conditions as may be required by the provisions of the By-Laws. (To lie over until next year.)

4. Referring to the proposed uniform regulation of membership, your Committee suggests the advisability of a full discussion of this important question in a Committee of the Whole of this body, that the Committee having the matter in charge be continued and that their reports be sent to the secretaries of the constituent associations for presentation to their respective houses of delegates.

A. T. McCORMACK, Chairman.
CHARLES S. SHELDON,
J. W. YOUNG,
JOHN B. ROBERTS,
W. B. RUSS.

On motion, the report of the Committee was adopted as a whole.

Report of Reference Committee on Miscellaneous Business

Dr. Hubert Work, Colorado, Chairman, presented the report of the Reference Committee on Miscellaneous Business, as follows:

Your Reference Committee on Miscellaneous Business reporting on the report of the Committee on Relief Fund and Physicians' Sanatorium begs to recommend:

1. That the House of Delegates endorses the proposition to organize a corporation for the collection, care and administration of a relief fund and the supporting of a tuberculosis sanatorium; the relief fund to be expended, so far as possible, with the cooperation of local medical organizations.

2. That a committee of five be appointed, with authority to add to their number one member from each state medical society, one from the society of the District of Columbia, and one from each of the government medical services, to bring the subject of the Relief Fund and Physicians' Sanatorium to the membership of state and local medical societies.

It will be observed that the adoption of this report in no way obligates the American Medical Association financially or commits it to the support of such a project further than to lend its moral support to a philanthropic movement in the interests of physicians incapacitated by tuberculosis.

On motion, the report was adopted. The sanatorium report was as follows:

Report of the Committee on Relief Fund and Physicians' Sanatorium

To the Members of the House of Delegates of the American Medical Association:

The failure of the House of Delegates to take definite action on the general plan presented by the committee last year, or to make suggestions for the continuance of the work by the committee, has prevented the carrying forward of the movement so rapidly as might otherwise have been possible. A liberal appropriation for the purpose was made by the Board of Trustees, only a small part of which has been used. However, the committee has continued its work, tentatively, along the lines indicated in its first report, reaching results that are herewith offered in definite suggestions. It is hoped that these will receive sufficient discussion, and formal acceptance or amendment at the present meeting.

We have consulted, in regard to incorporation, the officers and members of the American Medical Association, who have been most familiar with the conduct of its business in recent years. On the question of a separate incorporation for the purposes of a relief fund and sanatorium there is general agreement that this is desirable. Although a few think this unnecessary, an equal number have been unwilling to have the trustees of the American Medical Association act, even temporarily, as custodians of the funds to be devoted to this purpose.

With reference to national incorporation under a special act of Congress, we have inquired of officers of somewhat similar associations organized under such authority, as to the advantages so conferred. For our purposes such incorporation would give no advantage, except, possibly, prestige and greater liberty as to holding meetings. It might have the distinct disadvantage of rendering the new corporation entirely independent of the American Medical Association. But under present political conditions it would probably be impossible to secure the necessary special act of Congress, at least for many years. The interests opposed to protection of the public health have recognized in the American Medical Association a most powerful influence in bringing about legislation which, while promoting public welfare, will diminish their excessive and immoral profits. Realizing this, they have undertaken to oppose everything emanating from the American Medical Association. The benevolence of our purpose in this direction would give us no greater advantage than the benevolence which led to the support of the pure food legislation, or the establishment of a department of public health. The difficulties of obtaining special legislation from Congress offer peculiar advantages for its defeat. The political forces opposed to us can readily prevent such legislation, through methods they are especially able effectively to use. It therefore seems unwise to seek national incorporation under a special act of Congress.

A charter under the general incorporation laws of the District of Columbia would have no advantage over a charter obtained under the corporation laws of one of the states. Inquiry has shown no particular advantage to be derived from a charter granted in the State of Illinois, the state under the laws of which the American Medical Association has been incorporated. For the American Medical Association the advantage was that of becoming a corporation of the state in which its property was situated. This advantage, which might be of considerable importance, will accrue to the new enterprise by incorporation under the laws of the state in which the sanatorium is to be located.

This brings forward the question of choosing a location for such an institution. We believe that this question should be decided by the House of Delegates, or by a larger committee than the present one, representative of all sections of the country. But it seems obvious that a sanatorium for the treatment of tuberculosis should be situated in the elevated region of the western part of the United States; and that a location in the eastern part of this region will be nearest to the mass of our membership, the prospective patients, and to those who are interested in them, or in the conduct of the institution. A decision as to the general region in which the sanatorium should be located might well be reached at any time. The selection of the exact tract of land for it may need to be delayed until the project has reached a considerably later stage of development.

In such an undertaking, time is absolutely necessary for the growth of funds to be devoted to these purposes. The administration of a relief fund can begin at any time that there is revenue for the purpose. The opening of a sanatorium might be accomplished in a few months. But the accumulation of a financial basis for such an undertaking will necessarily require years.

It would seem then that after the adoption of a general plan, which can be put forward as the purpose for which money is to be raised, the first thing to be done is to arouse the interest of our more active and influential members; to the end that we may collect from the medical profession, and those they can immediately influence, the nucleus of a fund, which, growing as such funds do by time and with increasing rapidity, shall render it possible to effect our purpose.

The collection of funds will immediately render necessary the designation of a custodian for them. Inquiry seems to show no serious reason why the Board of Trustees of the American Medical Association should not be entrusted with the care of this fund, to be held in trust until the organization contemplated for its permanent care and administration can be perfected.

When a definite purpose has been formulated and a custodian designated, a committee authorized to extend its organization into every state society should be appointed to raise the money needed for making a practical start. Your committee has already ventured to call the attention of presiding officers of state medical societies to the movement, with the suggestion that it be brought before their respective bodies.

We would recommend:

1. That the House of Delegates formally endorse the proposition to organize a corporation for the collection, care and administration of a relief fund and the supporting of a tuberculosis sanatorium; the relief fund, to be expended, so far as possible, with the cooperation of local medical organizations; the sanatorium to be located in the elevated region of the United States, west of the one hundredth meridian of longitude.

2. That a committee of five be appointed, with authority to add to their number one member from each state medical society, one from the society of the District of Columbia, and one from each of the government medical services, to bring the subject of the Relief Fund and Physicians' Sanatorium to the membership of state and local medical societies: to receive money for the purpose, and to pay it to the designated custodian.

3. That the trustees of the American Medical Association be authorized and instructed to receive and hold as trust funds through such custodian as they may designate, all moneys collected for the above purpose; subject to the direction of the House of Delegates.

4. That a committee of five be instructed to prepare a plan of incorporation under the laws of the state of ..... and submit the same to the House of Delegates at its next annual meeting.

EDWARD JACKSON, Chairman.
JEFFERSON R. KEAN.
A. T. BRISTOW.
H. B. ELLIS.
A. C. MAGRUDER, Secretary.

Report of Reference Committee on Legislation and Political Action

Dr. J. N. Hurty, Indiana, Chairman, read the report of the Reference Committee on Legislation and Political Action, as follows:

Your Reference Committee on Legislation and Political Action has the honor to report that it has considered the resolutions of the St. Louis Medical Society relating to a reduction of tariff on imported surgical and optical instruments and glassware and scientific books written in English; and indorses the same, respectfully recommending that the House of Delegates adopt it.

J. N. HURTY, Chairman.

On motion, report was adopted.

Reconstruction of Judicial Council

Dr. John B. Roberts, Pennsylvania, moved a reconsideration of the motion adopted at a previous session of the House with reference to the formation of a Judicial Council, which motion was duly seconded and carried.

Dr. Arthur T. McCormack, Kentucky, chairman of the Reference Committee on Amendments to the Constitution and By-Laws, then moved the adoption of the following substitute for the amendment to Chapter IX of Section 4 of the By-Laws which had been offered at a previous session, which motion was duly seconded and carried:

Section 4. JUDICIAL COUNCIL. The Judicial Council shall consist of five members, who shall be nominated by the President and elected by the House of Delegates. At the annual session in 1911 one member shall be elected to serve for five years, one for four years, one for three years, one for two years and one for one year, and thereafter one member shall be elected each year to serve for five years. It shall select a chairman from its membership. The Secretary of the Association shall be, *ex officio*, Secretary of the Council. It shall expend money and contract debts only on the authority of the Board of Trustees. It shall keep a permanent record of its actions at its office which shall be at the headquarters of the Association. It shall make an annual report of its decisions and the results of its investigations to the House of Delegates.

The judicial power of the Association shall be vested in the Judicial Council, the decisions of which shall be final, and shall extend, (1) to all cases arising under this constitution and by-laws; (2) to all controversies to which the American Medical Association is a party; to controversies, (3) between two or more recognized state or territorial associations, these being constituent associations within the meaning of Article 4 of the Constitution; (4) between a constituent association and members of another association; (5) between members of different constituent associations.

In all cases in which the American Medical Association or one of its constituent associations is a party the Judicial Council shall have original jurisdiction. In all other cases before mentioned the Judicial Council shall have appellate jurisdiction, both as to law and fact, with such exceptions and under such regulations as it may adopt and publish in THE JOURNAL, provided that such regulations must be approved by the next ensuing session of the House of Delegates, and be officially certified to each constituent association. The Judicial Council may investigate professional conditions and all matters pertaining to the relations of physicians to one another and to the public and shall make such recommendations to the House of Delegates and the constituent associations as it deems necessary.

Dr. A. R. Mitchell, Nebraska, moved that the proposed amendment be printed and distributed before final action is taken by the House at to-morrow's session. Seconded and carried.

Report of Committee on Awards in Scientific Exhibit

The Secretary read the report of the Committee on Award of Prizes in the Scientific Exhibit, as follows:

Your Committee on Award of Prizes in the Scientific Exhibit, after careful inspection and mature deliberation, has unanimously agreed on the following awards:

A. FOR THE BEST RESEARCH EXHIBIT

1. *Gold Medal* awarded to the exhibit of the United States Public Health and Marine-Hospital Service for its exhibit of preparations and material concerned with research in plague and leprosy.
2. *Certificate of Honor* for research exhibit on investigation of pernicious malarial infection with reference to malarial hemolysins, awarded to Dr. Walter V. Brem, Colon Hospital, Cristobal, Canal Zone.
3. *Certificate of Honor* for research exhibit on nephritis, awarded to Drs. William Ophuls and Ernest C. Dickson, Cooper Medical College, Leland Stanford University.
4. *Certificate of Honor* for research exhibit on classification and identification of the parasites of the order of *Trematoda*, awarded to Drs. Henry B. Ward and E. F. Hirsch, Zoologic Department, University of Illinois.

B. FOR THE BEST GENERAL EXHIBIT

1. *Gold Medal*, awarded to pathologic exhibit of Hendryx Laboratory of the Los Angeles Medical Department, University of California.
2. *Certificate of Honor* awarded to Cooper Medical College, Leland Stanford University.

H. GIDEON WELLS,
M. P. RAVENEL,
W. E. MUSGRAVE.

On motion, the report was adopted.

Message to Taft on Pure Food and Drugs and on Department of Health

Dr. Hubert Work, Colorado, offered the following preamble and resolutions:

WHEREAS, It is believed by those best informed on the subject that there are 2,000,000 cases of sickness and 500,000 deaths in the United States every year from the use of impure food and drugs, and from diseases which are practically preventable and which ought to be prevented.

Resolved, That in the name of the medical profession and people of the United States, the American Medical Association extends its cordial thanks to President Taft for the magnificent fight he is making for pure food and pure drugs, and for the creation of a bureau or a department of health to insure the same protection to the health and lives of the people that the Department of Agriculture is so properly and ably giving to domestic animals and crops.

Resolved, That the Secretary of the Association be instructed to wire this resolution to the President of the United States.

On motion, the resolutions were adopted.

Resolution on Department of Health

Dr. Arthur T. McCormack, Kentucky, presented the following preambles and resolution:

WHEREAS, Honorable Robert L. Owen, Senator from Oklahoma, has introduced in the Senate of the United States Senate Bill No. 1, to create a department of public health for the purpose of giving the proper study to the causes of disease; and

WHEREAS, Such a department has been formally approved in the platforms of all our great political parties, and by President

Roosevelt and President Taft, in order that our country might be placed on a plane with the other civilized nations of the world in the conservation of our greatest national asset—the health and lives of our people; and

WHEREAS, Through sinister and corrupt efforts of the "patent-medicine" manufacturers, and those opposed to the honest administration of the pure food and drugs laws, many worthy persons have been misled into believing that this great measure, designed solely for the protection of the public health and for the prevention of disease, is designed to have any jurisdiction in limiting the practice of medicine; now, therefore, be it

Resolved, That the American Medical Association pledges its support to the principles of the Owen bill, Senate Bill No. 1, to create a department of public health; that it repudiates and denounces the misrepresentation of this measure and the base slanders against the medical profession distributed through the corrupt efforts of the interests which are behind the so-called League of Medical Freedom; that it declares itself as distinctly opposed to any efforts now or hereafter by Congress to regulate or control the practice of medicine, or to discriminate for or against any school or system of practice as a violation of the Constitution of the United States; and in order better to give effect to the principles set forth, be it further

Resolved, That the Board of Trustees, and the Council on Health and Public Instruction, THE JOURNAL and every other agency of this Association, be, and are hereby, instructed to use every honorable means to secure the passage of this measure; and that the Committee on National Health Organization be continued with the addition of Dr. J. B. Murphy, the President of the Association, and Dr. G. B. Young, representing the United States Public Health and Marine-Hospital Service, and that this committee, acting with the Council on Health and Public Instruction, shall consider and determine all matters and policies relating to national health legislation, and may invite the cooperation of and cooperate with state and county medical associations, and all other organizations having the same purpose in view.

On motion, the rules were suspended, and the resolution was adopted.

Trustees Empowered to Adjust Postoffice Matter

Dr. W. C. Woodward, District of Columbia, offered the following resolution, which was referred to the Board of Trustees:

WHEREAS, The Postmaster-General is endeavoring to carry into effect the laws and postal regulations relating to the carriage of second-class mail matter.

Resolved, That the Board of Trustees be and hereby is instructed to take such action, if any, as may in their judgment be necessary to make the business methods of the American Medical Association relating to the publication and distribution of THE JOURNAL conform with the laws and regulations aforesaid.

Proposed Committee on Obstetric Nomenclature

Dr. A. E. Benjamin, Minnesota, reported from the Section on Obstetrics and Gynecology, for the action of the House of Delegates, that in that Section Dr. T. Mitchell Burns, Denver, moved that a committee be appointed on obstetric terminology, especially in reference to the anatomy of the bony pelvis, the bony floor, and the reproductive organs and the fetal head. This was carried.

The resolution was referred to the Reference Committee on Sections and Section Work.

Discussion of Universal Membership Plan

Dr. John B. Roberts, Pennsylvania, moved that the House of Delegates go into a committee of the whole for the purpose of discussing the subject matter presented by the Reference Committee on Amendments to the Constitution and By-Laws relating to membership, which motion was duly seconded and carried.

The House then went into a committee of the whole.

When the committee arose it reported to the House, recommending that it appoint a committee of five from its own membership, who shall formulate definite amendments to the Constitution and By-Laws on the advice of counsel, and, on their approval by the Board of Trustees, shall submit them, together with these amendments, the discussion of to-day, and such other data as they may deem necessary to make the question clear, to the constituent associations and through them to the general membership.

On motion, the report was adopted.

Discussion on Official Button

Dr. Samuel P. Gerhard, Philadelphia, was given five minutes in which to speak on the official button, which he did, after which the President suggested that Dr. Gerhard appear before the Reference Committee on Reports of Officers, who still had this subject under consideration.

Honorary Membership Plan Called For

Dr. Oscar Dowling, Louisiana, requested the Council on Health and Public Instruction to report on a resolution that had been referred to it at the annual session of 1910, recommending the establishment of a form of honorary membership to include old and distinguished physicians in the national organization.

Preventive Medicine Resolutions

The Secretary read the following resolutions from the Section on Preventive Medicine and Public Health; which were referred to the Reference Committee on Hygiene and Public Health.

The Section on Preventive Medicine recommends to the House of Delegates, for its adoption, the following proposals on the investigation and control of syphilis and gonococcus infections:

1. That syphilis and gonococcus infections be made reportable.
2. That boards of health be supported by the medical profession in controlling the sources of infection of these diseases without prejudice as to sex or occupation.
3. That the medical profession do everything in its power to advance the moral and ethical issues involved.
4. That measures for popular education relating to these diseases be encouraged by every member of the Association.
5. That the American Association for Sex Hygiene be invited to confer with the Council on Health and Public Instruction in order to develop practical methods for obtaining the desired results.

L. M. POWERS,
FRANCES M. GREENE,
WILLIAM F. SNOW,
Committee.

On motion, the report was adopted.

And further:

To the Chairman and Members of the Section on Preventive Medicine and Public Health: If the following resolution has not already been passed by the House of Delegates on some previous occasion, we desire to make it as a supplementary report:

WHEREAS, The belief and teaching on the part of some of the laity and possibly on the part of some of the medical profession that sexual intercourse on the part of the adult male is essential to sound health is calculated to encourage promiscuous intercourse among those not better informed:

Resolved, By the American Medical Association that in the opinion of the Association continence is not inconsistent with perfect health on the part of individuals of either sex, and promiscuous intercourse seriously jeopardizes the health of the individual and gravely menaces the integrity of the race.

L. M. POWERS,
FRANCES M. GREENE,
WILLIAM F. SNOW,
Committee.

On motion, the House of Delegates adjourned until 2 p. m. Thursday.

Fifth Meeting—Thursday Afternoon, June 29

The House of Delegates met at 2 p. m. and was called to order by President Murphy.

The Secretary called the roll and ninety-seven members responded. On a second calling of the roll, 119 members were recorded as present.

Dr. D. Chester Brown, Connecticut, Chairman, presented a supplementary report of the Committee on Credentials, which showed that 131 delegates had registered.

The minutes of the previous session were read and approved.

Election of Officers

The election of officers being in order, the President appointed as tellers Drs. C. S. Sheldon, Wisconsin; Oscar Dowling, Louisiana, and W. L. Brittin, Illinois.

The following were elected:

PRESIDENT, Abraham Jacobi, New York.
FIRST VICE-PRESIDENT, Dr. William Jarvis Barlow, Los Angeles, Cal.
SECOND VICE-PRESIDENT, Dr. F. W. McRae, Atlanta, Ga.
THIRD VICE-PRESIDENT, Dr. W. R. Tipton, Las Vegas, N. Mex.
FOURTH VICE-PRESIDENT, Dr. A. L. Wright, Carroll, Iowa.
SECRETARY, Dr. Alexander R. Craig, Chicago, Ill.
TREASURER, Dr. William Allen Pusey, Chicago, Ill.
TRUSTEES, Dr. Philip Marvel, Atlantic City, N. J.; Dr. Philip Mills Jones, San Francisco, Cal.; Dr. W. T. Sarles, Sparta, Wis.

CHAIRMAN OF COMMITTEE ON TRANSPORTATION AND PLACE OF SESSION, Dr. J. Rawson Pennington, Chicago, Ill.

On nomination by the President, the House elected the following:

COUNCIL ON HEALTH AND PUBLIC INSTRUCTION (one member), Dr. Henry B. Favill, Chicago, Ill.

COUNCIL ON MEDICAL EDUCATION (one member), Dr. John A. Witherspoon, Nashville, Tenn.

JUDICIAL COUNCIL, Dr. Hubert Work, Denver, Colo., five years; Dr. James E. Moore, Minneapolis, Minn., four years; Dr. Alexander Lambert, New York City, three years; Dr. A. B. Cooke, Nashville, Tenn., two years, and Dr. Frank Billings, Chicago, Ill., for one year.

Honorary Member Elected

Dr. A. F. Jonas, Nebraska, presented the name of Mr. Harold J. Stiles, Edinburg, Scotland, from the Section on Surgery, for honorary membership, stating that this section had recommended his election.

On motion, the recommendation was concurred in.

Report of Reference Committee on Reports of Officers

Dr. George W. Guthrie, Pennsylvania, presented the report of the Reference Committee on Reports of Officers, as follows:

Your Committee Recommends:

1. *Public Lectures at Annual Session.*—That the President be authorized to appoint a committee of five to arrange for a demonstration to the public by a series of appropriate lectures as a part of the annual exercises attending the next session.

2. *Clinics at Annual Session.*—That another committee of five be appointed by the President to arrange for one clinic day before and one day after the close of the annual session.

3. *Small Medical Journal.*—That the President be authorized to appoint another committee of five to investigate and report at the next annual meeting as to the advisability of publishing a small medical journal as suggested in the address of the president.

4. *Health Journal for Laity.*—That another committee of five be appointed to investigate and report at the next annual meeting the advisability and feasibility of publishing a health journal for distribution among the laity.

5. *Greetings to Educational Association.*—That the House of Delegates heartily approves of the suggestion of the President that a committee of five be appointed to bear the greetings of the American Medical Association to the National Educational Association, which meets in San Francisco, July 8-14, 1911.

6. *Judicial Council.*—The committee reaffirms its approval of the President's recommendation for the recreation of a Judicial Council concerning which action has already been taken by this body.

GEORGE W. GUTHRIE,
D. S. FAIRCHILD,
J. R. KEAN,
OSCAR DOWLING.

On motion, the report was accepted and the recommendations concurred in.

President Murphy appointed as a committee to bear the greetings of the American Medical Association to the National Educational Association, Drs. Joseph L. Milton, Oakland, Cal.; Philip King Brown, San Francisco; H. L. E. Johnson, Washington, D. C.; R. W. Corwin, Pueblo, Colo., and F. W. Snow, Sacramento, Cal.

Report of Reference Committee on Section Work

Dr. Walter L. Bierring, Ia., Chairman, presented the report of the Reference Committee on Sections and Section Work with reference to a resolution referred to it from the Section on Ophthalmology, as follows:

PROPOSAL FOR BETTER OPHTHALMOLOGIC TRAINING

WHEREAS, A thorough preparation for ophthalmic practice requires the study of certain subjects not demanded of the candidate for the degree of doctor of medicine,

Resolved, That the American Medical Association, through its Section on Ophthalmology and its House of Delegates, expresses the desire that at an early date courses in ophthalmology requiring previous graduation in medicine and one year's work in an accredited ophthalmic hospital and dispensary service shall be established in each medical school possessing the necessary facilities.

Resolved, That the Council on Medical Education is hereby requested to consider the curriculum for such a course.

These resolutions were unanimously approved by the Section, and we recommend that they be approved by the House of Delegates.

On motion, the resolutions were approved.

The Committee on Sections and Section Work presented two other matters which were referred to it, as follows:

1. We recommend that the resolution received from the Section on Obstetrics and Gynecology, introduced in that Section by Dr. T. Mitchell Burns, of Denver, be referred to the Committee on Nomenclature and Classification of Diseases.

PROPOSED AMENDMENT TO PRINCIPLES OF ETHICS

2. The following has been received by the Committee from the Section on Preventive Medicine and Public Health:

"The committee on the reporting of typhoid fever of the American Public Health Association respectfully recommends to the American Medical Association that the principles of Medical Ethics be amended as regards Chapter III, Section 2, Enlightenment of Public on Sanitary Matters—Duties in Epidemics, as follows: It is the province of physicians *engaged in public health work* to enlighten the public in regard to quarantine regulations; to the location, arrangement and dietaries of hospitals, asylums, schools, prisons and similar institutions; in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails, it is their *the* duty *of all physicians* to face the danger, and to continue their labors for the alleviation of the suffering people, even at the risk of their own lives, *not omitting the foremost duty at any and all times of notifying the properly constituted public health authorities of every case of infectious or contagious disease of which they become aware!*"
(Italicized words are proposed for insertion.)

Your committee refers this matter to the House with the suggestion that the subject be referred to the Reference Committee on Amendments to the Constitution and By-Laws.

Officers of Section on Hospitals

The President stated that as a new section had been established, namely, the Section on Hospitals, it became necessary for him to name the officers of the section: Chairman, Dr. W. B. Russ, San Antonio, Tex.; secretary, Dr. John A. Hornsby, Chicago; executive committee, Dr. Joseph Beckton, Greenville, Tex.; Dr. Edward Jackson, Denver, and Dr. A. L. Brittin, Athens, Ill.

Report of Reference Committee on Hygiene

Dr. Alexander Marcy, New Jersey, Chairman, presented the report of the Reference Committee on Hygiene and Public Health, as follows:

Your Reference Committee on Hygiene and Public Health strongly endorses and urges the adoption of the following recommendation:

For generations these infections have been destroying the lives of men, women and children, have been causing misery and unhappiness beyond words to express, and yet the medical profession, fully cognizant of these conditions, have not unitedly tried to overcome them.

At the present time, there is no greater problem for the profession to solve, or more important work for the American Medical Association to undertake than the question of the study and control of venereal diseases, and while your Committee recognizes the fact that this question is not alone a medical one, yet there is so much of it that is purely medical that we feel that the Council on Health and Public Instruction should be instructed by this House of Delegates to appoint a special committee to investigate and study this subject and to report their conclusions to the next session of this Association.

GARDNER T. SWARTS,
W. E. MUSGRAVE,
T. D. TUTTLE,
ALEXANDER MARCY, JR., Chairman.

It was moved and seconded that the report, with its recommendations, be adopted, and after discussion, which was participated in by Drs. A. T. Bristow, New York, W. C. Woodward, District of Columbia, and Alexander Marcy, New Jersey, the motion to adopt was put and carried, and the report was referred to the Council on Health and Public Instruction, to report next year.

Election of Associate Members

The Secretary presented a list of names submitted by the Section on Stomatology and the Section on Pharmacology and Therapeutics, with the recommendation that they be elected to associate membership, and on motion the recommendation was concurred in.

The list is as follows:

Dr. C. Deichmiller, Los Angeles, Cal.
Dr. Robert T. Moffatt, Boston.
Dr. H. B. Shuman, Boston.
Dr. Walter Bradford, Boston.
Dr. Joseph E. Farnum, Providence, R. I.
Dr. M. Evangeline Jordon, Los Angeles, Cal.
Dr. Benjamin A. Green, Three Rivers, Mass.
Dr. Henry James Fettus, Baton Rouge, La.
Dr. Alvin Wallave Viney, Pasadena, Cal.
Dr. Harry Alonzo Fulsom, Los Angeles, Cal.
Dr. H. G. Chappel, Oakland, Cal.
Dr. W. H. Wherry, Ogden, Utah.
Dr. Charles W. Greene, Columbia, Mo.

Report of Reference Committee on Constitution

The President called for a report from the Reference Committee on Amendments to the Constitution and By-Laws.

Dr. Arthur T. McCormack, Kentucky, Chairman, stated that the committee recommended the adoption of the amendment to Chapter IX, Section 4, of the By-Laws, relating to the Judicial Council, which was printed and distributed yesterday. Accordingly he moved its adoption.

Motion seconded and carried.

Report of Reference Committee on Reports of Officers

BUTTON DESIGN REAPPROVED

Dr. George W. Guthrie, Pennsylvania, Chairman, stated that the Reference Committee on Reports of Officers had a supplementary report to make relative to the matter of the button of the Association. The committee believes the difficulty of manufacture of the button at a reasonable cost will be overcome by competition, and the committee recommends that the wishes of the Association, as expressed at the last session, be carried out.

On motion, the report was adopted.

The President called for a report from the Committee on Transportation and Place of Session.

Dr. M. L. Harris, Illinois, Chairman, reported that the association had been invited to three places, namely, St. Paul, Louisville and Atlantic City. The committee recommended that Atlantic City be chosen as the place for holding the next annual session.

On motion, the recommendation was concurred in.

Report of Judicial Council

ADMISSION OF PORTO RICO DEFERRED

Dr. Alexander Lambert, New York, reported for the Judicial Council as follows:

The Judicial Council desires to make the following report on the admission of the Medical Association of Porto Rico as a component part of the American Medical Association:

The documents presented have been examined and found to comply technically with the requirements of the American Medical Association. A copy of the constitution and by-laws, a certified list of the members of the association and a resolution requesting admission into the American Medical Association are all present. But there are provisions in the constitution and by-laws of the Porto Rico Association which conflict with the standards requisite for admission of component parts of the American Medical Association. Your Committee therefore recommends that the Secretary of the American Medical Association be instructed to send to the Medical Association of Porto Rico a copy of the Constitution and By-Laws of the American Medical Association and a sample copy of the constitution and by-laws of a component association to the American Medical Association which do not conflict with the rules and regulations of the American Medical Association, necessary for admission as a component society thereof, and that further action be deferred until such a constitution and by-laws have been adopted by the Porto Rico Medical Association.

On motion, the report was adopted.

Committee on Uniform Membership Announced

The President appointed the following as the Committee on Uniform Membership: Dr. Thomas McDavitt, St. Paul, Minn.; Dr. E. W. Weis, Ottawa, Ill.; Dr. Joseph Martin, New Orleans; Dr. E. J. Goodwin, St. Louis, and Dr. Claude A. Thompson, Muskogee, Okla.

Thanks Expressed to Los Angeles Entertainers

Dr. Hubert Work, Colorado, offered the following resolution of thanks:

The House of Delegates, representing the American Medical Association, desires to express its thanks to the Los Angeles Chamber of Commerce, to its Convention League and to the Los Angeles County Medical Association for their prodigal hospitality and for opening to us a score or more palatial auditoriums for the use of the Association and its subdivisions for sectional work. It particularly wishes to voice its appreciation of the services of that masterly executive and prince of entertainers, Dr. H. Bert Ellis, Chairman of the local Committee on Arrangements and of the official services of Dr. Philip Mills Jones, for years California's representative in the House of Delegates and later the representative of the Pacific Slope on our Board of Trustees. To the retiring officers, who have so signally dignified the American Medical Association through their professional achievements in impartial rulings and in patience in petty matters so essential to the integrity of the profession and its organization, we wish to express our unqualified admiration.

Los Angeles will never again be called on to defend her title, "The Queen Hostess Among American Cities," and with one voice we shall say on departing, "Not good-bye, but *au revoir*."

On motion, the resolution was adopted unanimously by a rising vote, it having been presented after unanimous consent had been obtained.

Better Paid Public Health Service Approved

Dr. W C. Woodward, District of Columbia, asked unanimous consent, which was granted, to present the following resolution:

Resolved, That the American Medical Association expresses its approval of legislation looking toward the bettering of the compensation of officers in the United States Public Health and Marine-Hospital Service, and urges the enactment in its present form by the House of Representatives of the bill just enacted by the Senate to accomplish that end.

On motion, the resolution was adopted.

Appreciation of Dr. Simmons' Work

Dr. John B. Lowman, Pennsylvania, asked unanimous consent, which was granted, to present the following:

The House of Delegates desires to express its appreciation of the great services to the American Medical Association of its Secretary for many years, Dr. George H. Simmons, whose ability as an executive officer has done so much to bring the detail work of the Association to such a high state of efficiency. It congratulates itself on the fact that Dr. Simmons' declination this year to succeed himself as Secretary, and the consequent election of another member, will not cause the Association to lose his unusual powers in the services of this body as the Editor of its JOURNAL.

On motion, this was declared to be the sense of the House.

President Murphy stated that there were other committees to be appointed, and with the permission of the House, he would postpone these appointments until a later date.

There being no further business, on motion the House of Delegates adjourned *sine die*.

Members of House of Delegates in Attendance

[The figures indicate the number of delegates to which the state is entitled.]

ALABAMA—3

S. L. Ledbetter...Birmingham
Senie Harris.....Mobile

ARIZONA—1

Ancil Martin.....Phoenix

ARKANSAS—2

Joseph T. Clegg..Siloam Spgs.
G. A. Warren.....Black Rock

CALIFORNIA—3

Joseph L. Milton.....Oakland
O. D. Hamilton.....Oakland
G. MacGowan....Los Angeles

COLORADO—2

Hubert Work.....Pueblo
Edward Jackson.....Denver

CONNECTICUT—2

E. J. McKnight.....Hartford
D. Chester Brown....Danbury

DELAWARE—1

H. R. Spruance....Wilmington

DISTRICT OF COLUMBIA—1

W. C. Woodward..Washington

FLORIDA—1

GEORGIA—2

Dunbar Roy.....Atlanta
W. C. Lyle.....Augusta

HAWAII—1

IDAHO—1

A. A. Higgs.....Boise

ILLINOIS—9

W. F. Grinstead.....Cairo
G. S. Rainey.....Salem
J. E. Allaben.....Rockford
A. L. Brittin.....Athens
J. L. Wiggins....E. St. Louis
E. J. Brown.....Decatur

INDIANA—4

Edwin Walker.....Evansville
J. B. Garber.....Dunkirk
Allison Maxwell..Indianapolis

IOWA—3

D. S. Fairchild.....Clinton
F. E. V. Shore....Des Moines
E. Hornibrook.....Cherokee

ISTHMIAN CANAL ZONE—1

W. C. Gorgas.....Ancon

KANSAS—2

P. S. Mitchell.....Iola
M. Trueheart.....Sterling

KENTUCKY—4

C. Z. Aud.....Cecilian
W. W. Richmond.....Clinton
M. E. Alderson....Russellville
A. T. McCormack.Bowling Gr'n

LOUISIANA—2

Jos. D. Martin...New Orleans
Oscar Dowling....Shreveport

MAINE—1

A. D. Sawyer....Fort Fairfield

MARYLAND—2

Randolph Winslow..Baltimore
James J. Carroll....Baltimore

MASSACHUSETTS—6

Horace D. Arnold.....Boston
Roger J. Lee.....Boston
Fred T. Murphy.....Boston
F. H. Thompson....Fitchburg
F. G. Wheatley...N. Abington
Hugh Cabot.....Boston

MICHIGAN—3

A. D. Holmes.....Detroit
R. R. Smith.....Grand Rapids

MINNESOTA—2

C. F. McComb.....Duluth

MISSISSIPPI—2

J. W. Young.....Grenada

MISSOURI—5

J. Franklin Welch...Salisbury
J. D. Brummall.....Salisbury
C. R. Woodson.....St. Joseph
E. J. Goodwin.....St. Louis
R. M. Funkhouser...St. Louis

MONTANA—1

T. D. Tuttle.....Helena

NEBRASKA—2

F. A. Long.....Madison
A. R. Mitchell.....Lincoln

NEVADA—1

J. E. Pickard.....Reno

NEW HAMPSHIRE—1

C. B. Nichols.Los Angeles, Cal.

NEW JERSEY—3

Alexander Marcy....Riverton
E. L. B. Godfrey.....Camden
G. N. J. Sommer.....Trenton

NEW MEXICO—1

L. L. Cahill.....Springer

NEW YORK—11

J. C. MacEvitt.....Brooklyn
W. H. Thornton.....Buffalo
W. W. Strang..New York City
J. E. Weeks....New York City
D. H. Murray.....Syracuse
A. T. Bristow.....Brooklyn
E. E. Cornwall.....Brooklyn
S. W. S. Toms.....Nyack
James W. Fleming...Brooklyn
W. B. Hambidge..Ogdensburg
Edgar A. Vander Veer..Albany

NORTH CAROLINA—2

NORTH DAKOTA—1

Victor H. Stickney..Dickinson

OHIO—7

B. R. McClellan.....Xenia
P. B. Brockway.....Toledo
B. H. Blair.....Lebanon
G. E. Robbins.....Chillicothe
J. E. Tuckerman....Cleveland
E. J. March.....Canton
E. O. Smith.....Cincinnati

OKLAHOMA—2

Claude Thompson....Muskogee
E. E. Rice.....Shawnee

OREGON—1

C. J. Smith.....Pendleton

PENNSYLVANIA—9

W. B. Scull.....Philadelphia
John B. Roberts..Philadelphia
Geo. W. Guthrie..Wilkes-Barre
John B. Lowman...Johnstown
T. D. Appel.....Lancaster
G. S. Nutt.....Williamsport
M. H. Fussell....Philadelphia
Lewis H. Adler...Philadelphia
A. C. Morgan....Philadelphia

PHILIPPINE ISLANDS—1

W. E. Musgrave.....Manila

RHODE ISLAND—1

G. T. Swarts.....Providence

SOUTH CAROLINA—2

John L. Dawson....Charleston
Edgar A. Hines.....Seneca

SOUTH DAKOTA—1

T. B. Smiley.....Mt. Vernon

TENNESSEE—3

John L. Jelks.....Memphis
A. B. Cooke.....Nashville
S. R. Miller.....Knoxville

TEXAS—5

W. B. Russ.....San Antonio
W. L. Brown.....El Paso
A. C. Scott.....Temple
Vard H. Hulen.....Houston
Joe Becton.....Greenville

UTAH—1

A. A. Kerr.....Salt Lake City

VERMONT—1

VIRGINIA—3

W. E. Anderson.....Farmville

WASHINGTON—2

J. R. Yocum.....Tacoma
Wilson Johnston.....Spokane

WEST VIRGINIA—2

F. L. Hupp.....Wheeling

WISCONSIN—3

B. M. Caples.....Waukesha
C. S. Sheldon.....Madison
Richard F. Werner..Eau Claire

WYOMING—1

H. R. Lathrop.....Casper

Delegates from the Sections

PRACTICE OF MEDICINE
Alex. Lambert..New York City

SURGERY
A. F. Jonas.....Omaha

OBSTETRICS AND GYNECOLOGY
A. E. Benjamin...Minneapolis

OPHTHALMOLOGY

LARYNGOLOGY, OTOLOGY AND RHINOLOGY

DISEASES OF CHILDREN
A. C. Cotton.....Chicago

PHARMACOLOGY AND THERAPEUTICS
Reid Hunt..Washington, D. C.

PATHOLOGY AND PHYSIOLOGY
Walter L. Bierring.....Des Moines, Iowa

STOMATOLOGY
G. V. I. Brown.....Milwaukee

NERVOUS AND MENTAL DISEASES
E. D. Fisher...New York City

DERMATOLOGY

PREVENTIVE MEDICINE AND PUBLIC HEALTH
J. N. Hurty.....Indianapolis

GENITO-URINARY DISEASES

Delegates from Government Services

Jefferson R. Kean..U. S. Army
C. P. Bagg.....U. S. Navy
G. B. Young.....U. S. P. H. and M.-H. S.

Reference Committees of the House of Delegates

SECTIONS AND SECTION WORK
W. L. Bierring.....Iowa, Chairman
Senie Harris.....Alabama
Edward Jackson.....Colorado
A. F. Jonas.....Nebraska
R. R. Smith.....Michigan

RULES AND ORDER OF BUSINESS
J. E. Weeks.....New York, Chairman
Joseph Clegg.....Arkansas
O. D. Hamlin.....California
A. C. Kimberlin.....Indiana
G. Lane Taneyhill..Maryland

MEDICAL EDUCATION
H. D. Arnold.....Massachusetts, Chairman
Reid Hunt.....D. C.
D. R. McClellan.....Ohio
C. F. McComb.....Minnesota
A. R. Mitchell.....Nebraska

LEGISLATION AND POLITICAL ACTION
J. N. Hurty.....Indiana, Chairman
B. M. Caples.....Wisconsin
A. B. Cooke.....Tennessee
W. C. Gorgas.....Canal Zone
G. B. Young.....P. H. & M.-H. Service

HYGIENE AND PUBLIC HEALTH
Alexander Marcy.....New Jersey, Chairman
C. S. Huffman.....Kansas
W. E. Musgrave.....Philippine Islands
G. T. Swarts....Rhode Island
T. D. Tuttle.....Montana

AMENDMENTS TO THE CONSTITUTION AND BY-LAWS
A. T. McCormack.....Kentucky, Chairman
John B. Roberts..Philadelphia
W. B. Russ.....Texas
C. S. Sheldon.....Wisconsin
J. W. Young.....Mississippi

REPORTS OF OFFICERS
G. W. Guthrie.....Pennsylvania, Chairman
E. J. Brown.....Illinois
Oscar Dowling.....Louisiana
D. S. Fairchild.....Iowa
J. R. Kean.....U. S. Army

CREDENTIALS
D. Chester Brown.....Connecticut, Chairman
E. J. Goodwin.....Missouri
E. A. Hines..South Carolina
W. W. Richmond...Kentucky
J. E. Tuckerman.....Ohio

MISCELLANEOUS BUSINESS
Hubert Work.....Colorado, Chairman
A. T. Bristow.....New York
Ancil Martin.....Arizona
A. D. Sawyer.....Maine
V. H. Stickney..North Dakota

THE OPENING MEETING OF THE ASSOCIATION

Tuesday Morning, June 27

The general meeting of the Association was held in the Baptist Auditorium, and was called to order at 10:30 a. m. by the President, Dr. William H. Welch, Baltimore.

Prayer was offered by the Rt. Rev. Joseph H. Johnson, Los Angeles.

Dr. W. Jarvis Barlow, President of the Los Angeles County Medical Association, was introduced, and delivered the following

Address of Welcome

Mr. President, Fellow Members of the American Medical Association, Ladies and Gentlemen:—On behalf of the medical profession of Los Angeles County, I extend to you a sincere and hearty welcome to a section of the country where many, who have stayed with us longer than a week, have considered it a veritable Paradise. This means that if any of you remain over Sunday with us our population will increase more than it has at its present rate, namely, ten thousand a month.

To have been selected by the medical profession to the position of welcoming this national body to our city is to me a great honor, for there is no organization on this earth of which one may feel more proud than that of the American Medical Association for its results already accomplished and its work now in progress. The meeting of this medical association in any community is an inspiration to the people who attend it, and I wonder sometimes if its leaders realize the good resulting to the Association by its occasionally selecting for its meeting new localities.

The different sections are brought into closer touch with each other. New people are taught the prevention of disease, and learn what scientific medical men are thinking and doing. We have felt inspiration here, both lay and medical people, and since the announcement of your coming our local society has gained nearly one hundred new members this year, now numbering something over five hundred. I hope some of you will stay and join us. We need well equipped medical men in every line. Although we enjoy the privileges of an equable climate, full of sunshine, and the possibilities of leading an outdoor life the whole year around, we feel isolated at times from the great centers of scientific progress and the well equipped laboratories which you great men of the East never miss. These are the difficulties which separate us, and which I feel are the only disadvantages of southern California.

Much has been done for our meeting and for your entertainment. We have taken the keenest pleasure in preparing for your coming, and I hope you will all enjoy yourselves to the utmost. We are a united family, take pride in our work, and continue to lift our eyes to the cause of human progress for the purpose of advancing civilization, and last, but best of all, for the prevention of disease. I thank you heartily for your presence here to-day and again welcome you. (Applause.)

Welcome From State Society

Dr. Thomas W. Huntington, San Francisco, President of the State Medical Association of California, speaking for that body, said:

Mr. President, Fellow Members of the American Medical Association, Ladies and Gentlemen:—Despite the embarrassment and the responsibility which goes with the circumstances, I feel a high degree of pleasure in being permitted on this occasion to bear the message of a hearty welcome from the State Medical Association of California to the greatest Association on the American continent. Four times within its history this Association has faced the setting sun and has crossed the Sierras. Once you came here in the middle seventies, and I doubt if there be anyone here to-day with a personal experience that compasses that period. Yes, I am inclined to think that there is one person here who was present on that occasion, and he is a Californian. In the middle of the eighties you were with us. We recognized you then as a very growing and prosperous body. You came to us again at Portland, Ore., in 1905, and again we saw what we see to-day, a magnificent body of men, but smaller, yet unequaled by any body of men in the world, and associated with a community which it is a delight to honor.

We as the members of the State Medical Association of California, as residents of California, and as members of a common brotherhood of the Pacific Slope, extend to this Association a very hearty welcome. We hope that you will come here to stay, but we know that you will not. We know you have your mission at home. You have your work to do, and you are doing it grandly, but those who can spend a week or a month here will not have spent their lives in vain.

In closing, you will pardon me if I take a second of time to make a purely personal allusion. I want to say to the members of this Association that we of California join with you in once more paying a tribute to one whom we love and whom you have honored as President of this great body, Dr. William H. Welch, who has exerted an influence on medical thought and on scientific endeavor which has proved an inspiration to all of us. He has increased the usefulness of life, he has smoothed the pathway, and brightened the lives of every medical man or woman within his jurisdiction. In grateful recognition of his well-sustained honor, and with generous appreciation of his personal work, in your wisdom you have chosen to honor him for like reason, and we of the Pacific Slope join with you in according to him a conspicuous place in the front rank of American physicians. (Applause.)

Welcome From the City of Los Angeles

Hon. George Alexander, Mayor of Los Angeles, said:

Mr. President, Ladies and Gentlemen:—It is a pleasure for me this morning to welcome to our city these delegates from all parts of our country, who have come here to discuss the great subjects connected with the medical profession. It has been my pleasure in the past two years to welcome many organizations to our city who have seen fit to hold their conventions here. But this convention is something unusual. This convention is composed of men who will bring more benefits to our people than the men of any other profession whom I have welcomed in the past. We need the members of the medical profession. Sometimes we need them badly. I want to say to you, that when you are not engaged in your work here I trust you will visit the city and other parts of southern California. We have got a good and splendid country to live in. We want all of you to see our mountains, our beaches, our Catalina Islands, and our orange groves. We want you to see what we have got. We think we have got something here that will entice many of you to become residents of Los Angeles. We want you to have a good time while you are here, and we hope you will be so lavishly entertained that you will be glad to come again. Our climate is very attractive for people who are in poor health. In my experience of eight years as a member of the County Board of Supervisors, I became aware of the fact that many people in the last stages of consumption came to our county and had to be cared for. Some of them came without friends, and others paid their fare here because they thought they might be benefited. But they came here to die. I want to caution you doctors not to send dying patients out here. It is not right. You should not send patients out here who are in the last stages of tuberculosis unless they have the means to be properly cared for. I speak from experience when I say that. It is cruelty to send people to this climate without means.

We hope to derive a good deal of benefit from the deliberations of this convention. Yesterday it gave me great pleasure to listen to Col. Gorgas, who spoke on the methods he had adopted in Panama. There are a great many other subjects we are interested in besides sanitation. At the present time our people need to be fully instructed not only on sanitary matters, but with respect to the disposal of garbage. The latter is a question which must be taken care of. The city of Los Angeles is not in as good condition from a sanitary point of view as it might be, and we trust our physicians here will listen to the discussions and give the people the benefit of them. It is something that is of vital importance to our city. While our climate is as good as any in the world, we must have the latest methods of sanitation, and we must make provision for the poor who come here. We have got to do it. Dr. Barlow is doing a great work, and I know from my own knowledge that he is doing good work. Many men of wealth can do something to help the poor and the needy.

I want to thank you for your close attention, and I trust that your meetings will result in great benefit to our city and the country at large. (Applause.)

Response by President Welch to the Addresses of Welcome

Ladies and Gentlemen:—In behalf of the members of the American Medical Association, I desire to express our thanks and appreciation of these cordial words of welcome which

have been uttered in behalf of the medical profession and of the people of this city and of this state. The American Medical Association, which represents the entire profession of the country, has grown so large that there are relatively few cities in this country which can provide even physical accommodations for our annual session. We find here the most ample provision, not only for the actual needs of the meeting but for all entertainments in the most generous fashion, and it may be regarded as something of an indication of the marvelous growth of this city that it is able to make these remarkable provisions for our comfort and entertainment.

Those who have come here from the East and have never been to the Pacific Coast before have had a wonderful education as to the achievements of our people, as to the powers, and as to the possibilities of this great country in their journeying across the continent. But here in southern California we surely find the climax of this journey. Here in this land, so wonderous in its beauty, so magical in its charm, so interesting in its romantic history, and so remarkable in the energy and in the development of the people and of the country, we are very fortunate in having selected this place for holding our annual session this year, and I am sure that my colleagues who came from the East already feel that the journey has amply repaid them for what they have seen and heard here. It may perhaps be some reward for the toil of those who have labored for the success of this meeting to be assured, and I think I may express at the outset that assurance that we are to have here in Los Angeles at this meeting one of the most memorable and agreeable and successful of all the meetings of the Association in its history. (Applause.)

Dr. H. Bert Ellis, Chairman of the Local Committee of Arrangements, then announced the program of entertainments. [For particulars, see THE JOURNAL, May 20, 1911.]

Installation of President Murphy

Dr. Welch, in introducing his successor, said: It is now my pleasure and honor to present to the Association and to this audience one who needs no introduction to any medical audience in the civilized world; one who has brought distinction to American medicine and honor to his country by his valuable contributions to surgery; a leader and an ornament to our profession, President of the American Medical Association, Dr. John B. Murphy. (Applause.)

The First Vice-President, Dr. E. E. Montgomery, Pennsylvania, then took the chair, and President Murphy delivered his address. [This address appeared in THE JOURNAL July 1, 1911.]

The address was referred to the House of Delegates, to the Reference Committee on Reports of Officers.

The Secretary read a communication from Senator Owen. [In the publication of the President's address, this letter is given at the point where it is referred to.]

Dr. J. N. McCormack, Kentucky, moved that a rising vote of thanks be extended to Senator Owen for his able, persistent and courageous attitude and interest in humanity and his efforts to establish a national department of health, and to the President of the United States for his interest and assistance to this end. Motion seconded by several and carried unanimously.

Adjourned.

Medical Economics

CONTRACT PRACTICE

In order to discuss intelligently what is generally known as contract practice, it is necessary first to define what one means by the term, since it is used to designate everything from the employment of a surgeon by a railroad to lodge practice and employment of physicians by burial and aid societies. The term "contract practice" is a misnomer and should not be used, since it conveys the impression that the objectionable feature of this class of work is that it is based on a contract. This is entirely incorrect and misleading since, legally, all medical practice is based on a contract between the physician and the patient, which contract is implied if not specifically expressed. A physician has as much right to enter into a contract as has any other business or professional man. The objection to what is popularly known as contract practice is not that it is based on a contract but that it is based on an unfair contract. There are, in all such arrangements, four parties to be considered: the doctor, the patient, the medical profession and society at large. If none of these parties is injured by the proposed agreement, there is no reason why it should not be entered into. The question, therefore, is not whether a contract exists but whether the contract is fair to all concerned.

There are three questions which should be asked in each case:

1. Is there an economic justification for such an agreement?
2. Is the contract such a one that no one will be harmed thereby?
3. Is it a direct agreement between the physician and the patient or is the physician being exploited for the benefit of a middleman?

In the case of industrial corporations the employment of a competent surgeon, or surgeons, is necessary as a protection against unjust damage suits. Railroad companies, for instance, find it necessary to have employees and others, who are injured on or by their property, examined by a competent surgeon on whose opinion they can rely. If they did not do so, they would be constantly exposed to suits for damages, many of which would be without justification. Such professional services, therefore, come under the same head as fire insurance, for instance, and are really a form of protection. It should be clearly understood, however, that such companies are in no way justified in demanding that the surgeon in their employ shall treat their employees, except in cases of actual injury while on duty, and it should be particularly emphasized that such corporations are entirely unjustified in demanding that their surgeons treat or attend the families of their employees.

Another economic justification is found in the case of industrial establishments so located as to be inaccessible to physicians in private practice. Instances of this are to be found in lumber camps, mines, etc., so situated as to be inaccessible to private practitioners or where the amount of work does not justify a physician in locating near the mine. Here, if the company did not employ a physician and guarantee him a living income, the employees would be deprived of proper medical and surgical attendance. In such cases, if the location of the mine makes ordinary professional competition impossible, the company would be justified in asking the surgeon to attend the members of the employees' families.

These economic conditions, however, do not apply to lodges, fraternities, benevolent and benefit organizations, etc. On the other hand, contracts with physicians who are subject to ordinary professional competition soon become exceedingly harmful, since competition leads to cutting of rates and to a gradually lowering of compensation to a point far below the value of the services, which invariably means that the patient does not receive proper services, as the physician cannot afford to devote the necessary amount of time to each case. The competition, consequently, hurts the physician himself, since it leads him to do poor work; the patient, since he does not receive proper attention; the profession, since the standard of living is lowered, and the public, since a certain number of its members are pauperized.

The fact that the distinction between the different forms of contract practice has been obscured only makes it all the more necessary to consider each case separately. For instance, a railroad is justified in employing a surgeon at a fixed salary to examine and report on all cases of injury among its employees or patrons. This is a simple agreement between a company and an individual for the protection of the property rights of the company. The railroad company, however, is not justified in demanding, neither is the physician justified in agreeing that he should also care for the non-accidental illnesses of employees or that he furnish professional services for employees' families. There is no justification for a lodge having a physician, except to make life insurance examinations, since furnishing free medical attendance or attendance at a nominal rate to its members is not

a legitimate function of a fraternity. There is no excuse whatever for furnishing professional services at a nominal rate to members of benevolent aid societies, since this involves buying the services of the physician at wholesale and selling them at retail to the individual member, thus permitting the promoter or the company to profit and, in fact, to exploit the physician for personal benefit.

If we are to retain the confidence and respect of the public we must think more clearly on economic and sociologic questions than has been the custom in the profession heretofore. If we oppose an arrangement which is not only justifiable but necessary, we will not only fail to accomplish anything but we will injure our influence at the same time. If we submit to an economic wrong, we thereby lose the respect of the public. It is, therefore, necessary for us as a profession to analyze existing social problems and to discriminate carefully and accurately between those relations which are justifiable and those which are not.

Book Notices

INTRODUCTION TO PRACTICAL ORGANIC CHEMISTRY. Including Qualitative and Quantitative Analysis and Preparations. With Special Appendix on the London University Syllabus, and Schemes of Analysis for Stages 1 and 2 of the Board of Education Syllabus. By A. M. Kellas, B.Sc. (Lond.), Ph.D. (Heidelberg), Lecturer on Chemistry at the Middlesex Hospital. 1910. Cloth. Price, $1.35 net. Pp. 204, with 50 illustrations. New York: Oxford University Press, 1910.

This is a companion to "A Manual of Inorganic Chemistry," by the same author; it is intended for the preparation of English medical students for their examinations in organic chemistry. The material is particularly arranged and systematized to enable the student to make a rapid general review of the subject. The contents are divided into six parts, viz.: (1) "Qualitative Analysis of Organic Compounds for Elements;" (2) "General Laboratory Operations;" (3) "Preparations of Typical Organic Compounds;" (4) "Tests and Analysis for Special Compounds;" (5) "Detection of the Group to which an Organic Compound Belongs" and (6) "Quantitative Analysis." While this outlines an amount of chemical knowledge which would constitute several years of special work in our large universities, the book is nevertheless essentially a quiz compend, arranged for quick preparation for examinations. If the graduates of American medical schools were required to have the thorough training in chemistry, which it would appear the English graduates must have, the former would be less apt to become the dupe of manufacturers of fake synthetics and chemical impossibilities.

A MANUAL OF PRACTICAL INORGANIC CHEMISTRY. Including Preparations and Qualitative and Quantitative Analysis with the Rudiments of Gas Analysis. Specially Adapted to Cover Preliminary and Intermediate University Courses and the First Three Stages of the Syllabus of the Board of Education. By A. M. Kellas, B.Sc. (Lond.), Ph.D. (Heidelberg) Lecturer on Chemistry at the Middlesex Hospital Medical School. Cloth. Price, $1.35. Pp. 347, with 51 illustrations. New York: Oxford University Press, 1910.

This text is similar in nature to the one by the same author above reviewed, differing only in subject-matter and somewhat in scope. It is written and arranged in the same general way, making the material quickly available for rapid review.

THE SOURCES AND MODES OF INFECTION. By Charles V. Chapin, M.D., Sc.D., Superintendent of Health, Providence, R. I. First Edition. Cloth. Price, $3 net. New York: John Wiley & Sons, 1910.

In this interesting book Dr. Chapin sets forth what is known of the sources and modes of infection in the case of the common, important infectious diseases, and with special reference to practical preventive measures. In Chapter 1 he reviews the evidence of growth of disease germs outside the body, reaching the general conclusion that in temperate climates this does not occur to such extent as to play an important part in causing disease. The second chapter is devoted to carriers and missed cases, the great importance of which, in spreading infectious diseases, is brought out clearly and forcibly. "Any scheme of prevention which fails to take into account carriers and missed cases is doomed to partial and perhaps complete failure." Chapter 3 deals with the limitations to the value of isolation and whether one agrees with all the statements or not, there is much here especially for health officers holding strictly to traditional methods to think about. Chapters 4, 5, 6, 7 and 8 discuss infection by contact, by fomites, by air, by food and drink, and by insects, respectively. Contact is held to be the principal way by which many infectious diseases are spread, while fomites infection is claimed to be of very much smaller importance than formerly and in many places at present believed. Dr. Chapin's views in regard to the value—or uselessness rather—of terminal disinfection are well known and they are restated without any essential modifications. Health officers, physicians and all who are interested in questions of hygiene and sanitation will find this a suggestive and valuable book. Its chief value lies in the fact that an earnest and thorough effort is made to point out the relative importance of different factors in spreading infectious diseases and to indicate on the basis of what we know the directions in which our preventive measures must be modified and developed.

THE EFFECTS OF A NUMBER OF DERIVATIVES OF CHOLIN AND ANALOGOUS COMPOUNDS ON THE BLOOD-PRESSURE. By Reid Hunt and R. de M. Taveau. Hyg. Lab. Bull. 73, U. S. P. H. and M.-H. S., Treasury Department, March, 1911. Paper. Pp. 135. Washington: Government Printing Office, 1911

Hunt and Taveau present a series of systematic studies on the physiologic action of the derivatives of cholin. Cholin occurs in various tissues of the animal body including the adrenals, and in certain vegetable preparations such as ergot. It exerts a depressor effect on blood-pressure. Some of the derivatives of cholin are extremely active in lowering blood-pressure. Thus acetyl-cholin is 100,000 times as active as cholin, and but three times as toxic. It is several hundred times as effective as nitroglycerin, and counteracts a dose of epinephrin several hundred times as large. The authors discuss this preparation and action of a number of other similar derivatives of cholin, and point out the great therapeutic possibilities in this group of substances.

REPORT OF THE MASSACHUSETTS COMMISSION TO INVESTIGATE THE QUESTION OF THE INCREASE OF CRIMINALS, MENTAL DEFECTIVES, EPILEPTICS AND DEGENERATES. January, 1911. Paper. Pp. 50.

This report, presented to the Massachusetts legislature by a commission of five appointed by the governor to investigate the subject, contains a large amount of data regarding criminals and degenerates in Massachusetts, including tabulations from 1890 to 1909. Analysis of the prison reports for Massachusetts shows that, contrary to popular impression, crime has diminished since 1890, the number of arrests for crimes against the person in 1890 being 3.44 per thousand, and the average during the period of 1905 to 1909 only 2.92. Commitments to prison for crimes against the person in the period from 1890 to 1894 were 0.832 per 1,000 of population, and in the period 1905 to 1909 they were 0.499 per 1,000. Commitments for crimes against property have diminished from 1.21 in 1890 to 1.05 in 1909; crimes against public order from 1.63 in 1890 to 1.25 in 1909; the total number of commitments for all crimes having diminished from 10.47 per 1,000 of population in 1890 to 9.25 per 1,000 in 1909. Criminal prosecutions and juvenile crime are also tabulated. Data regarding the insane show an increase from 2.168 per 1,000 in 1890 to 3,379 in 1909. The increase in admissions to insti-

DIE HERNIEN UND IHRE BEHUNDLUNG. Von O. Borchgrevink, Oberarzt des Diakonenhospitals in Christiana. Paper. Price, 5 marks. Pp. 311, with 40 illustrations. Jena: Gustav Fischer, 1911.

This is a small volume of 300 pages with 40 illustrations. Many of the latter are not up to the present-day standard. The major portion of the work is stereotyped and presents nothing new; in fact, it omits many of the modern ideas concerning the origin of hernia. The best chapters are those which deal with the statistics of strangulated hernia and with the treatment of this complication. Here the author is at his best and gives some excellent advice. A short appendix on hernia and accident insurance closes the volume.

tutions for feeble-minded and epileptic runs from 0.295 per 1,000 in 1890 to 0.651 in 1909. The commission is of the opinion that this marked increase is more apparent than actual, as many persons are now committed to public institutions who were formerly cared for at home. Tabulations regarding pauperism, based on the admissions to poorhouses and relief furnished by county boards, show that, in 1890, 25.28 persons per 1,000 were so relieved. In the period of 1895 to 1899, however, the ratio increased to 31.97. The report concludes with twenty recommendations, summarizing the findings of the commission, which include measures for the prevention of the birth of defectives and degenerates by an extension of custodial care; for the restriction of immigration; for the exercise of more discrimination in the treatment of first offenders and habitual criminals; for further study of the causes and prevention of juvenile crime; for the enactment and enforcement of stringent laws regarding firearms; and for further research in state institutions as to causes of various types of degeneracy and mental disease.

FEEBLE-MINDEDNESS IN CHILDREN OF SCHOOL AGE. By C. Paget Lapage, M.D., M.R.C.P., Lecturer in School Hygiene to the Manchester University. With an Appendix on Treatment and Training, by Mary Dendy, M.A. Cloth. Price, $1.60 net. Pp. 359, with illustrations. New York: Longmans, Green & Co., 1911.

This book is Number XIII of the medical series of the University of Manchester publications and is written to emphasize the importance of the subject of mental deficiency, to show the prominent place that proper care of feeble-minded persons should take in measures for the public welfare, and to demonstrate the fact that feeble-mindedness is an inherited trait and is capable of being transmitted with growing frequency to future generations. The report of the Royal Commission on the Care and Control of the Feeble-Minded, published in 1908, has stimulated interest in this question in Great Britain. The book is intended for school medical officers, teachers, social workers and others who have to deal with feeble-minded children, and contains chapters on the physical and mental characteristics of such children, their defects of speech, special types of feeble-mindedness, methods of diagnosis, treatment and care and a discussion of the inherited and acquired causes of this condition. A comprehensive bibliography and an exhaustive index are added. The book is well printed and copiously illustrated, and is a valuable addition to the literature of the subject.

PREVENTION OF INFECTIOUS DISEASES. By Alvah H. Doty, M.D., Health Officer of the Port of New York. Cloth. Price, $2.50. Pp. 281. New York: D. Appleton & Co., 1911.

Dr. Doty's extensive experience as health officer at the port of New York peculiarly fits him for the preparation of this book. In the preface, he states that it has been his aim to "deal with the subject from a practical standpoint and to present the latest knowledge relative to the transmission of infectious diseases and the means by which they may be prevented." Small-pox, yellow fever, typhus fever, cholera and bubonic plague are considered, as well as disinfection, disinfectants and the rôle of insects in the transmission of infectious diseases. A chapter on the thermometer discusses the importance of careful temperature observations in the examination of suspects as well as the method employed at the New York Quarantine Station. This book is of special interest in that it is based largely on the personal experience of the writer.

1910 BLUE BOOK OF SURGERY. Technic of the Surgical Clinic, Anesthesia and Anesthetics, Preoperative and Postoperative Care of the Patient, and Diagnosis and Treatment of Some of the Most Important and Frequent Surgical Diseases. Compiled for the Interns, Students and Nurses of the College of Medicine and Surgery, University of the Philippines, and the Philippine General Hospital. Under the Direction of John R. McDill, M.D., Professor of Surgery, College of Medicine and Surgery, Univ. of the Philippines. By Hans E. Schiffbauer, M.D., Instructor in Surgery, College of Medicine and Surgery, Univ. of the Philippines. (Published in part in the Bulletin of the Manila Medical Society.) Cloth. Pp. 66.

So far as we are aware, this is the first instance of a manual of surgery being issued in the form of a government bluebook. It has been prepared by Dr. McDill, professor of surgery of the College of Medicine and Surgery of the University of the Philippines, for the use of interns, students and nurses, and is the successor of two small pamphlets, one on anesthesia and one on technic, which appeared last year. Surgical and clinical technic, anesthesia, preparation of patients, postoperative care and the treatment of emergencies are discussed in separate chapters. The surgical conditions considered are appendicitis, peritonitis, surgical diseases of the stomach, tetanus, hernia and tubercular adenitis. An evidence of the widening of the scope of governmental scientific work is found in the notice from the bureau of printing which accompanies the book, stating that the bureau is experimenting with book coverings in search of a material immune from the attacks of insects, and asking for reports as to the durability of the binding of this volume. Dr. McDill's manual, while limited to sixty-six pages, is concise and comprehensive and should prove of value in the instruction of students, interns and others. The chapter on differential diagnosis of gastric disturbances is by Dr. Graham of Rochester, Minn.

THE PRINCIPLES AND PRACTICE OF DERMATOLOGY. Designed for Students and Practitioners. By William Allen Pusey, A.M., M.D., Professor of Dermatology in the University of Illinois. Second Edition. Cloth. Price, $6. Pp. 1079, with 356 illustrations. New York: D. Appleton & Co., 1911.

The author in this revision of his admirable book has found it necessary to add a number of new titles, among them being "Gangosa," "Sporotrichosis," "Brown-Tail Moth Dermatitis," "Dermatitis from Straw-Mites," "Cestode Larva in the Skin," "Paraffinoma" (an affection following the injection of paraffin for cosmetic purposes), and some others. In the article on syphilis several pages are devoted to salvarsan, which name the author does not use, still calling it "606." These pages are simply interpolated without explanation or apology, as if by afterthought, and are not connected with the rest of the text; in fact, they are inserted between pages 584 and 585, and divide a sentence on the treatment of syphilis. Nor do they correctly represent the latest opinions on dose or method of administration. Neither the drug nor the method of treatment is mentioned in the index. The section on radium and the author's method of treating skin lesions with solid carbon dioxid have been expanded. Otherwise few changes have been made.

HAND-BOOK OF THE SURGERY OF THE KIDNEYS. By W. Bruce Clarke, M.A., M.B. (Oxon.), F.R.C.S., Senior Surgeon to St. Bartholomew's Hospital. Cloth. Price, $4 net. Pp. 199, with 50 illustrations. New York: Oxford University Press, 1911.

This is a good example of a custom which is more prevalent in England than in this country: the publication of personal experiences in the form of monographs. The description of each of the principal surgical diseases of the kidney is very concise and fairly thorough. The entire book reads like a clinical lecture, the personal element being prominent throughout. It is one of few modern books on renal surgery to mention the importance of an accessory renal artery to the upper pole of the kidney. Attention has been directed recently in this country by several writers to the possibility of severe hemorrhage occurring either during or after operations on the kidney from such an accessory vessel. The greater portion of the chapter on examination is devoted to the differential diagnosis of renal from other abdominal tumors. This is rather to be deplored, as there are many other surgical conditions of the kidney than those which give rise to tumor formation. A Luys separator, such as that shown on page 30, would seem to us to be superfluous in the present state of development of cystoscopy and ureteral catheterization, since the use of the separator has been practically discarded by the majority of workers in this field. No mention is made of the use of indigo-carmin as a means of testing the functional capacity of the kidney. The reference on page 41 to removal of a portion of the kidney for tuberculosis is unfortunate, as this method of operation has long been considered obsolete. The book is one of few which urge a search for the presence of stones in both kidneys. Under "injuries of the kidneys" an excellent description of the pathology and symptoms is followed by a one-sided view of treatment; reference is made to the operative treatment only.

There are but few illustrations, the majority being taken from the St. Bartholomew's Hospital Museum.

Society Proceedings

COMING MEETINGS

American Ophthalmological Society, New London, Conn., July 11.
Oregon State Medical Association, Los Angeles, Cal., July 10.

AMERICAN SOCIETY FOR ADVANCEMENT OF CLINICAL INVESTIGATION

Third Annual Meeting, held at Atlantic City, May 8, 1911

The President, DR. JOSEPH H. PRATT, of Boston, in the Chair

The officers elected were named in THE JOURNAL, May 27, 1911, page 1584.

Further Studies on the Internal Secretion of the Pancreas

DRS. JOSEPH H. PRATT, FRED T. MURPHY and LESLEY H. SPOONER, Boston: In a dog, nine months after the pancreas was separated from the duodenum, total sclerosis of the gland was found at autopsy. The site of the pancreas was occupied by a thick-walled duct, the epithelium of which had proliferated. In the wall of connective tissue were no acini or islands of Langerhans, but here and there were a few epithelial cells. Although the tolerance for carbohydrates was greatly reduced in this dog it did not develop diabetes. At the operation a triangular portion of pancreas measuring 1 cm. on each side was left connected with the duodenum and surrounding a large pancreatic duct. At autopsy this part of the gland also was found completely atrophied. Trypsin was demonstrated in the duodenum and also in the dilated pancreatic duct. This as well as other observations show that a minute amount of sclerosed and atrophied pancreatic tissue is sufficient to prevent the development of diabetes.

A dog has been kept alive two and a half years after separating the pancreas from the duodenum and it has never developed diabetes. The intestinal contents of this animal do not contain trypsin. This dog's tolerance for glucose could be raised to the normal by feeding fresh pancreas either of the sheep or pig. It remained at the normal level for over a month after pancreas was withdrawn from the diet, and then slowly fell to a low point. This was a female dog and she was a puppy when atrophy of the pancreas was induced by separating the pancreas from the duodenum. She has never menstruated and there has been an arrest of mental development, so that she still behaves like a puppy although now three years old.

Bits of the pancreas were transplanted into the spleen. Dogs and cats were used in these experiments. Most of the grafts disappeared in a few days, but well preserved acini surrounded by granulation tissue were found after thirteen days. A graft of pancreas connected with a mesenteric stalk was placed in the spleen. Later the remainder of the pancreas was extirpated and the mesenteric vessels running to the graft in the spleen were cut. The dog did not develop diabetes. In fact its tolerance was higher than in animals in which atrophy of the pancreas was produced.

Some Experiments to Determine the Nature of the Toxemia in Acute Pancreatitis

DRS. JOHN SPEESE, R. G. TORREY and JOSEPH SAILER, Philadelphia: In 1908 we reported investigations which showed that after the experimental production of acute pancreatitis the blood-serum becomes intensely toxic to guinea-pigs and dogs, the only animals on which it was tested. This toxemia had already been noted by Guleke and Von Bergmann, by Doberauer and inferred by Hildebrand and Williams, who were unable to find bacterial infection in certain cases of acute clinical and experimental pancreatitis. Guleke and von Bergmann believed that the symptoms were due to the absorption of trypsin.

Our results are as follows: Dogs were operated on in the usual way, that is the abdomen and the duodenum are opened and about 20 c.c. of oil injected into the duct of Wirsung. In from six to ten hours, if the injection is successful, the animals are moribund. They are then bled to death, the serum collected and tested in various ways. It is to be noted that the blood in these cases is usually of a chocolate-brown color. We have not yet endeavored to determine the cause of this change. The clot is soft and the serum is always deeply colored. The toxicity of the blood was tested in guinea-pigs in the manner described in our previous paper. Incidentally Dr. Rehfuss discovered ulceration of the gastric mucous membrane in all respects similar to that observed by him and Dr. Loeb in various experimental intoxications.

Our methods for detecting trypsin were as follows:

Blood-serum was diluted with an equal amount of one-fifth normal sodium carbonate solution and a small amount of chloroform-water added. This was digested for twenty-four hours. It was then tested for the amount of uncoagulable proteid by the Kjeldahl and the Volhard methods. There was no difference between the digested specimens and the controls. As nearly as could be judged there was no difference in the intensity of the biuret reaction. Other portions of the blood-serum were then mixed with equal parts of a saturated solution of ammonium sulphate and the filtrate tested for trypsin as before. There was no evidence of any digestive effect. The blood-serum was then mixed with varied proportions of an arbitrary solution of starch, incubated and tested with Fehling's solution for the presence of glucose, but the Fehling solution was not reduced. All these tests were repeated with commercial preparations of pancreas and were positive. As we could not find any evidence of a fat-splitting ferment in the commercial preparations of the pancreas we did not attempt to find it in the blood-serum.

The results are therefore negative. This may be due to the absence of either the proteolytic or the amylolytic ferments in the blood-serum or to faulty methods or to faulty technic. Negative results are always inconclusive because a single positive result will destroy their significance, but we feel justified in saying that at the present time there is no reason to believe that the toxemia of acute pancreatitis is caused by the absorption of any of the external secretions of the pancreas.

Some Observations on a Pancreatic Cyst

DR. HENRY A. CHRISTIAN, Boston: In a man, aged 42, fourteen months before admission to the hospital swelling of the legs began, followed two months later by the development of ascites. During a period of two months the abdominal fluid was withdrawn three times, and after the third tapping did not reappear. Soon after the third tapping, about ten months before admission to the hospital a gnawing pain appeared in the upper abdomen with occasional sharp paroxysms. Four months before admission a large lump appeared in the upper abdomen to disappear after a month and a half. Five weeks before coming in this lump reappeared and continued to be present. There was a large bulging tumor extending from beneath the ribs to an inch and a half above the umbilicus, elastic, smooth, moving slightly with respiration, apparently a cyst, crowding the stomach up and the transverse colon down. At operation this was found filled with a slightly viscid fluid, dark brown in color, containing changed blood. The wall of the cyst showed granulation tissue and no epithelium. The fluid withdrawn from the cyst was slightly alkaline and did not reduce Fehling's solution. It failed to give a trypsin reaction and did not digest coagulated egg albumen at body temperature, either as it came from the cyst or after the addition of scrapings from the duodenum. In the incubator at body temperature at the end of twenty-four hours it had acquired the power of reducing Fehling's solution, and previous boiling did not prevent this reducing substance from appearing. Kept at a temperature, however, of 60 C., no such reducing substance appeared, and preservation in the ice box for one month did not result in its appearance. The reducing substance so produced was fermented by yeast with the production of gas.

The Production of Glycosuria with Extracts of the Hypophysis

DR. JOSEPH L. MILLER, Chicago: The work on this subject has been more or less conflicting. Borchardt has obtained

positive results when using rabbits and in a few cases with dogs. Franchini, working with rabbits, was only able to produce a glycosuria in two instances and where extensive ulceration of the bowel was present, sufficient he thinks to account for the glycosuria. Pal also reports that he was unable to produce a glycosuria by this means. I have worked with extracts made from dried ox hypophysis. Extracts were made from both anterior and posterior lobes. Reducing substances, not sugar, are frequently found in dog's urine. In addition to Fehling's test, the polariscope and fermentation tests were employed. Ten animals received intraperitoneally and intravenously extracts of the anterior lobe. Only two showed a glycosuria, one 0.48 per cent. and the other 5 per cent. Nine animals received extracts of the entire posterior lobe. Only one gave glycosuria 0.5 per cent. Further experiments are necessary before we can arrive at a definite conclusion either as to the rôle played by the hypophysis in glycosuria, or the portions of the hypophysis responsible for it.

The Presence of Dextrose in the Exudate of Pulmonary Edema

DRS. I. S. KLEINER and S. J. MELTZER, New York City: An injection of epinephrin causes in animals, as it is now well known, hyperglycemia and glycosuria. It is further known that some rabbits die after an injection of epinephrin from pulmonary edema. An examination of the exudate in these cases revealed the presence of dextrose. In order to be able to study the subject at will the rabbits were made to inhale ammonia through a tracheal cannula. Without exception the animals died in a few minutes from pulmonary edema. A systematic study established, in the first place, the following fact: Exudates of pulmonary edema of animals which received adrenalin contain dextrose, no matter whether the pulmonary edema came on spontaneously or was brought on by ammonia. The amount of the dextrose in the exudate was in most cases larger than in the hyperglycemic blood. It was found furthermore that, even without the injection of adrenalin, exudates from pulmonary edema (brought on by the inhalation of ammonia) contained dextrose far above that belonging to normal glycemia. It was established further that the blood of the animal thus dying from pulmonary edema was definitely hyperglycemic. The explanation offered for the last-mentioned phenomenon is that animals which die of pulmonary edema are, of course, asphyxiated and it is the asphyxia which causes the hyperglycemia and the exudation of dextrose. The quantitative relations will be dealt with at a later date.

Orthodiascopic Observations Concerning a Certain Type of Small Heart and Its Relations to Some General Systemic Affections

DRS. I. ADLER and O. F. KREHBIEL, New York City: We have found by numerous orthodiascopic observations and measurements that a certain form of small heart is regularly associated with a typical clinical picture. There is commonly present gastric hyperacidity and flatulence and abdominal distension. Clinical and microscopic study of the stomach contents after test-meals and of the feces fails to find any anatomical lesion. They are neurotic phenomena. At the same time, there are in the great majority of cases psychic symptoms; above all, a tendency to mental depression, and frequently hypochondria. The heart itself is smaller than the minimum normal for corresponding size and weight, especially in the transverse diameter. The aorta may be abnormally narrow or not. The blood-pressure is, as a rule, somewhat low, but not necessarily so. There is no evidence of any muscular disease of the heart.

After years of observation, secondary symptoms, due to insufficiency of the heart, have never been found. The heart is simply small, and remains small. There are many clinical cases which correspond exactly to the type mentioned, without the small heart; but in all of these cases it must be noticed that they have been acquired. The type that we here record is always congenital and may be found in comparatively young children. The cases we mention have absolutely no hysterical symptoms. It is our belief that this form of microcardia associated with the symptoms sketched is probably a clinical entity; but it is not our opinion that the small heart is a causative factor. With Kraus, we do not look on the small heart as a hypoplasia or a separate disturbance of cardiac growth, but rather as one of many other deviations from the normal.

The Relation of Arteriosclerosis to Acute Infectious Diseases

DR. CHANNING FROTHINGHAM, JR., Boston: Do the toxins of acute infectious diseases produce any lesion in the arterial system? If so what relation does this lesion bear to the arteriosclerosis of old age? We know from the literature that in cases of acute infection diffuse aortic lesions exist. Are these lesions due to the infective agent or its toxins? After injecting bacterial toxins in rabbits arterial lesions have been found. Human tissue taken at random from the aorta, spleen and kidney was studied for arterial lesions. In practically all cases of persons above 30 years, whether acute or not, the same lesion existed. In the renal arteries there were fat droplets in the muscle fibers and occasionally an increase in connective tissue in some layer. In the spleen, besides fat droplets in the media there was a peculiar hyaline-like degeneration involving one or all the layers. The aorta showed an irregular thickening of the intima with fat present. In the media fat droplets were in the muscle fibers, and also fat was in the intima in spots with no thickening. Next, cases in persons younger than 25 were studied. No different lesion was found, but in many, whether an acute infectious case or not, one or more of the above-described lesions existed. Fat droplets in the muscle of the renal arteries occurred in all the cases above 2 years of age of typhoid fever, tuberculosis and pneumonia. The splenic arteries showed the hyaline change in all cases of tuberculosis, pneumonia and diphtheria above two years of age and in over 50 per cent. of septicemia cases. The aortic lesions were present in cases over 2 years in all those of tuberculosis, typhoid fever, and pneumonia and in the majority of diphtheria and septic cases. One case of glanders showed marked lesions in all three tissues. The fact that all cases under two years showed no lesions argues against their being due to toxins. The peculiar lesions in the splenic arteries and the thickened intima of the aorta must leave on healing a permanent sclerosis, which may or may not have some relation to the arteriosclerosis of old age. Attempts to produce a general lesion in guinea-pigs by injection of bacterial vaccines were unsuccessful.

Remarks on Nephritis

DR. MARTIN H. FISCHER, Cincinnati: The underlying cause of every nephritis is an abnormal production or accumulation of acid in the kidney, and this one factor acting on the different colloids of which the kidney is composed produces all the changes characteristic of nephritis. The proof for such a contention resides in the facts (1) that evidence of an abnormal acid production may be found in any case showing the signs and symptoms of a nephritis, (2) that any method which leads to an abnormal production or accumulation of acid in the kidney is followed by the signs of nephritis, and (3) that any method by which we can counteract the effects of acid on the colloidal kidney structures constitutes a means of relieving the signs and symptoms of nephritis.

The swelling of the kidney in nephritis represents an increased absorption of water by the colloidal proteins of the kidney (edema), produced under the influence of an acid, and analogous to the increased absorption of water by fibrin or gelatin when an acid is added to these. The grayness of the kidney (clouding) is due to a precipitation of another colloid, analogous in its behavior to that of casein, within the cells of the kidney. The two together constitute "cloudy swelling." Casts are produced because when an acid is introduced into the kidney, the kidney falls apart in such a way as to permit the epithelial cells to stick together, while they loosen in mass from their basement membrane. This marks the origin of the epithelial cast. Granular or hyaline casts are successively produced from the epithelial at will, if the acid is

allowed to act for longer periods of time, or in greater concentration. A hyaline cast can be reconverted into a granular one by neutralizing the acid, or adding various salts. The disturbances in water secretion in nephritis are due to the effect of the acid in interfering with the normal production and loss of carbon dioxid in the parenchyma cells of the kidney, on which normal secretion depends. Reduction in the absolute quantities of dissolved substances secreted by the nephritic kidney is secondary to the decrease in the absolute amount of water secreted. Changes in the proportion to each other of the dissolved substances secreted as compared with the proportion that these bear to each other in normal urine, are dependent on the effect of the acid in changing the adsorption properties of the kidney colloids.

The general rule to observe in the treatment of nephritis is to avoid all conditions which favor an abnormal accumulation or production of acid in the kidney—hence diets rich in alkalies and low in acids are indicated. The giving of water is not to be restricted, but to be encouraged, for the kidney cannot make water out of nothing, and plenty of water dilutes the toxic substances (including the acid) which are responsible for the injury to the kidney. The only danger of giving water resides in washing out salts and so favoring the action of acid in bringing about those deleterious effects on the kidney which are characteristic of nephritis. This danger is to be avoided, and can be, by giving salts, including sodium chlorid. Sodium chlorid restriction is not only not good but thoroughly bad. Experimental observations on animals show how the most intense grades of nephritis may be relieved by giving salts (concentrated sodium chlorid or concentrated Ringer solution) and alkalies (sodium carbonate). Such methods also lead to the disappearance of the generalized edema. Cases of nephritis with complete suppression of urine for several days were studied by Drs. James J. Hogan (Vallejo, Cal.) and Kennon Dunham (Cincinnati) in which relief of all symptoms and disappearance of all signs occurred after giving strong aqueous sodium carbonate-sodium chlorid injections per rectum.

All nephritides showing clinical symptoms are parenchymatous nephritides. Chronic interstitial nephritis without albumin or casts is not primarily a nephritis, but an atrophy of the kidney, and must be treated from this point of view. In this disease there is no evidence of an abnormal acid content in the kidney, and so also no decrease in urinary output. Primarily this is a vascular disease and the atrophy of the kidney and the hypertrophy of the heart are secondary to this. When the chronic interstitial nephritic shows albumin and casts then he also shows evidence of abnormal acid production in the kidneys, fails to secrete a normal amount of urine and develops an edema. At the same time his kidneys show the evidences of a parenchymatous nephritis added to his so-called chronic interstitial nephritis.

The Influence of the Administration of Potassium Salts on the Elimination of Chlorids in the Urine

DR. R. S. LAVENSON, Philadelphia: The administration of potassium salts causes an increased elimination of chlorids in the urine. The administration of 3 drams of potassium acetate daily for a period of two or three days, to a normal individual, increased the elimination of chlorids in the urine from 6 to 9 grams. Potassium nitrate administered in relatively slightly smaller quantities was attended by a slighter increase in the chlorid elimination. In subjects without edema, there is usually a compensatory chlorid retention after the administration of potassium is stopped. Sodium acetate did not cause any increased elimination of chlorids. It appeared that the amounts of chlorids eliminated have a direct relationship to the amount of potassium administered. This effect of potassium salts is of direct therapeutic value in connection with non-nephritic edemas, but it is doubtful if it is of any value in the treatment of edema resulting from nephritis.

The Leukocytic Enzymes in Leukemia in Neutral Media

DRS. R. S. MORRIS and T. R. BOGGS, Baltimore: We made a study of the enzymes of the leukocytes in neutral media in two cases of acute myeloid leukemia, two of chronic myeloid and two of chronic lymphoid leukemia and pus from an empyema. Before testing, the cells were washed with physiologic salt solution to remove the blood-plasma. In all instances the following enzymes were found: protease, amylase, maltase and lipase. Invertase, lactase, and a glycolytic ferment were not demonstrable. It thus appears that in neutral media, so far as examined, no biologic differences were found between the cells of the myeloid and the lymphoid series.

Vital Staining of "Stipple Cells" in Malarial Blood

DR. THOMAS R. BOGGS, Baltimore: Looseness in terminology and inaccuracy of description have led to confusion of two distinct types of granulation in the red blood-cells in malarial fever. These are: (1) The basophilic granulation of Plehn which is none other than the well-known Grawitz granulation seen in many anemic conditions. (2) The second type is the so-called Schüffner's, or Mannaberg's granulation which is weakly basophilic or amphophilic, and is found only in the infected cells, while the Plehn, or Grawitz granules, are found in uninfected cells only. We have observed several cases of malarial fever in which the anemia was marked and both types of granulation occurred simultaneously. In these cases studies were made of the unfixed blood with a large number of dyes. Very fine particles of the dyes were allowed to dissolve in the plasma of the unfixed fresh smears and their selective action on the two types of granulation observed. In brief, it may be said that the Grawitz, or Plehn, granules in the uninfected cells stained strongly with most of the basic dyes, while the Schüffner granules showed a weaker staining, being unstained with methylene-blue, faintly stained with crystal-violet, methyl-violet and azur I, and brilliantly stained with safranin. This latter stain (safranin) did not stain the Grawitz or Plehn granules at all. Lastly, the Schüffner granulation (which is limited to those cells containing parasites) was always peripheral in arrangement, suggesting a change in the envelope of the red cell, while the basophilic Grawitz granules were scattered and often central in position.

The Etiology of Actinomycosis

DR. FREDERICK T. LORD, Boston: Actinomycosis involves the head and neck in somewhat more than one-half of the cases. In a considerable proportion of those with the disease in this region its point of origin can be traced to the tissues in or about the buccal and pharyngeal cavities. When the disease involves the maxillary region, trouble with the teeth often precedes the onset of the affection and if an operation is performed, a sinus may be traced to the root canal of a carious tooth. The disease involves the thorax and the abdomen in about 40 per cent. of the cases, each of these regions being affected in about 20 per cent. The initial lesion in such instances is usually either in the lung or the gastro-intestinal tract. Here too the buccal cavity may be regarded as the probable source of the infection, invasion taking place from organisms which have been inhaled or swallowed. Organisms resembling actinomycetes in morphology and staining reaction can be demonstrated in the contents of carious teeth and in the yellowish, hard or soft masses in the tonsillar crypts of patients without actinomycosis. The intraperitoneal inoculation of guinea-pigs with the contents of carious teeth and the crypts of the tonsils gives rise to omental tumors histologically identical with actinomycotic tissue and containing typical club-bearing actinomyces granules. Similar lesions have been produced in animals inoculated with scrapings from sound teeth. The inoculation of material scraped from coated tongues has given inconclusive results.

To completely establish the identity of these organisms and their relation with actinomycosis, pure cultures should be obtained. With such cultures, it should be possible to produce in animals lesions like those obtained with pure cultures of actinomycetes obtained from human or bovine actinomycosis. Attempts to accomplish this by various means have thus far failed. The isolation of the organism from material obtained from the teeth and the tonsils and from the experimental lesions in animals is rendered especially difficult by the abundance of the contaminating bacteria. From these

considerations, until proof is offered to the contrary, actinomycosis may be regarded as arising from organisms harbored in and about the teeth and in the crypts of the tonsils.

Practical Tables of Food Values

DR. EDWIN A. LOCKE, Boston: The tables represent an attempt to simplify the methods of calculating the weights of the various nutritive constituents and the fuel values of the common American foods and beverages. So far as possible they have been arranged to obviate the actual weighing of foods and of tedious calculations which are necessary when the ordinary tables of chemical analyses are employed. Furthermore for the foods which are ordinarily served cooked, the values are given for them as prepared for the table. In the case of made dishes, however, so many factors combine to make the composition variable that the values chosen can be considered only approximate. No original analyses have been made but all calculations are based on actual weighings. The average helping has been uniformly chosen as the basis of the determinations, and in order that the size of the portion may be more definite, the actual quantity in common measure and the exact weight in grams are also given. The number of grams of water, protein, carbohydrates and fat in the average helping is stated, as well as the fuel value in calories represented by each. The last two columns of the tables include the total calories as well as the number of calories per 100 grams.

From these tables one is enabled to calculate by simple addition the total protein, carbohydrates and fat ingested at a single meal or during the twenty-four hours, or to make direct comparisons of different articles of food according to the calories represented by each ingredient. When food is taken in amounts other than the average helping, its value can be reckoned from its weight and the value for 100 grams given in the last column.

Observations on Venous Blood-Pressure Under the Influence of Certain Drugs

DR. J. A. CAPPS, Chicago: The importance of the venous blood-pressure has been overshadowed by the interest in arterial pressure. The study of venous pressure has been further limited by the lack of simple, accurate apparatus. A series of animal experiments were undertaken by the method of Morawitz and Tabora. Of the cardiovascular drugs which raise arterial pressure, caffein, digitalin and strophanthin produced no change in venous pressure, epinephrin in large doses induced a rise in venous pressure, nitroglycerin, amyl nitrate and large doses of morphin set up a fall in venous, as well as in arterial, pressure. Alcohol in toxic doses on the other hand is followed by a rise in venous and a fall in arterial pressure.

A Clinical Cause of Hypotonia and Hypothermia

DR. HAVEN EMERSON, New York: A man with an entirely negative previous history and in apparently perfect physical condition, fell, during an attack of vertigo, and fractured the fifth and sixth cervical vertebræ. In addition to the clinical findings of a complete sensory and motor paralysis below the level indicated, the diaphragm action being unimpaired, there was a persistent low temperature and a low general blood-pressure. The rectal temperature fell from 97.8 F. on the first day to 96.2 F. on the second day and then remained at 90 F. or a little above or below for the remaining four days of life. The systolic blood-pressure remained at 88-90 Hg from the second day until the patient died three days later. These two observations agree with findings reported in experimental transverse section of the cord in rabbits and dogs. The clinical observation here reported has not been made before, I believe, and may be found if looked for where the functional lesion is high enough and complete enough to sever the greater part of the vascular system from control of the vasomotor and heat regulating centers in the medulla. It is to be expected that in such a case the coincident occurrence of infectious and usually febrile processes in the body might be overlooked owing to the failure of a rise of temperature.

AMERICAN PEDIATRIC SOCIETY

Twenty-Third Annual Meeting, held at Lake Mohonk, N. Y., May 31-June 2, 1911

The President, DR. HENRY D. CHAPIN, New York City, in the Chair

A list of the officers elected was given in THE JOURNAL, July 1, 1911.

The Fundamental Principles of Pediatrics

The address by the president, Dr. Chapin, will be published in full in THE JOURNAL.

The Therapeutic Utility of Diphtheria Antitoxin

DR. AUGUSTUS CAILLE, New York City: The discovery of diphtheria antitoxin has revolutionized the treatment of diphtheria. The only reason for the present-day mortality is that the great divergence of clinical manifestations of diphtheria is not sufficiently recognized and the public is not sufficiently educated along these lines. Experienced physicians know that it is impossible to distinguish clinically between tonsillitis and diphtheria, and that it is useless to wait for the laboratory report. A running nose, usually one-sided, a thin blood-colored greenish discharge, an excoriated upper lip, a croupy cough with stridulous breathing, and finally cyanosis, are suggestive of the disease. It is not generally appreciated that certain forms of bronchopneumonia and pleuropneumonia can be favorably influenced by diphtheria antitoxin. Whenever a primary or secondary bronchopneumonia is suspected to be associated with diphtheria, antitoxin should be administered freely. Whooping-cough might be complicated by a visible throat diphtheria, and antitoxin is indicated as soon as the slightest throat or nose exudate is in evidence. In the event of a croupy cough in pertussis the prompt administration of antitoxin is life-saving, inasmuch as it makes intubation unnecessary. Immunizing injections should only be made with the serum other than that which comes from a horse. The scope and application of diphtheria antitoxin should be widened. I advocate a scratch test to detect hypersusceptibility. An animal serum other than that from a horse is needed, or an antitoxin not associated with albumin to avoid anaphylactic shock.

DISCUSSION

DR. E. K. GRAHAM, Philadelphia: In the Memorial Hospital for Crippled Children it has been the practice for a long while to give immunizing doses of antitoxin, and over a long period of years no injurious effects have been observed. In the Municipal Hospital in Philadelphia, also, they have not seen evidence of anaphylaxis, except of a very mild degree. It is very important to decide definitely whether or not there is any real danger from anaphylaxis and just how great the danger is, before influencing physicians against its use.

DR. G. R. PISEK, New York City: As to the scratch test, very minute quantities of the protein will cause anaphylactic shock, and it would be almost impossible not to introduce even with a scratch enough to produce this condition. At the present time we should use antitoxin only in suspected cases, and not unless there is definite reason for it.

DR. J. MASON KNOX, Baltimore: I doubt very much whether, if it were found that the patient was susceptible to the skin reaction, it would be a definite indication that he would be susceptible to a subsequent injection of horse serum.

DR. MATTHIAS NICOLL, New York City: It would be a great mistake to allow the idea of a possible anaphylaxis to interfere with our use of antitoxin as a preventive.

DR. C. G. KERLEY, New York City: In the Nursery and Child's Hospital some of the children have had three or four repeated injections and no anaphylaxis has been observed.

DR. JOHN RUHRÄH, Baltimore: It would be a great mistake to lay too much stress on this idea of anaphylaxis, as many physicians might be afraid to use immunizing doses.

The Value of Pertussis Vaccine in the Treatment of Whooping-Cough

DR. EDWIN E. GRAHAM, Philadelphia: My earliest cases received only 20,000,000 bacteria for four days; this dose failed to produce any untoward symptoms, and was increased

accordingly to 40,000,000 bacteria every four days. Careful study of these cases tended to show that the disease was modified by treatment. The same dose was then given every three days, and beneficial results seemed to be definite. Then 40,000,000 bacteria were given every two days. In not a single instance was there evidence of any local inflammation. I believe that the dose should be increased beyond 40,000,000, especially in severe cases.

SYMPOSIUM ON POLIOMYELITIS

The Extent and Distribution of Poliomyelitis in the United States and Canada

DR. ROBERT W. LOVETT, Boston: My report is based on studies made from two hospitals, the Children's Hospital in Boston and the New York Orthopedic Hospital. There had been a gradual increase in the number of cases during the past twenty-five years; the disease was especially prevalent in Massachusetts and Vermont during the first outbreak in the United States, which occurred in 1894. In the following eleven years there had been an average of fifteen cases a year. In 1905-06 no epidemics of the disease. In 1907 a large epidemic in New York City, 2,500 cases being reported. In 1908 the disease appeared quiescent. In 1909 a large epidemic occurred in various parts of the United States, 2,343 cases being reported. In 1910 a larger number of cases were reported than at any time before, and its distribution seemed to be greater than in any previous year; there were 8,700 cases reported.

Prevailing Clinical Manifestations of Poliomyelitis. The Cerebral Type

DR. HENRY KOPLIK, New York City: The cerebral forms of poliomyelitis were first brought to the attention of the profession in 1905 and in the epidemic described by Wickman in Sweden. Polioencephalitis, poliomyeloencephalitis of Strümpel, that form of encephalitis of Oppenheim, were included, as were also the forms of polioencephalitis, inferior and superior, of Wernick. All forms might be merged in some cases in one another. The greatest difficulties are offered by the cerebral cases which simulate either meningococcic meningitis, with isolated basic palsies, or meningitis of the tuberculous type.

Prevailing Clinical Manifestations of Poliomyelitis—the Spinal Type

DR. JOHN LOVETT MORSE, Boston: It is commonly known that paralysis comes on quickly in the course of a few hours, or at most three or four days; this is followed by a stationary period of from one to four weeks, and this by a period of improvement lasting from six months or a year, and finally the paralysis occurring, which is, as a rule, less than the initial paralysis. As a rule, spinal paralysis is mono- or hemiplegic, and it is comparatively unusual to have all the muscles of the extremities involved. It is not unusual for other muscles than those of the extremities to be involved. Diagnosis of infantile paralysis of the spinal type after the development of the paralysis is easy; the difficulty is in making a diagnosis before the appearance of the paralysis. Hyperesthesia is the most constant and the most important symptom. The only possible method of making a diagnosis of infantile paralysis of the spinal form before the onset of paralysis is by lumbar puncture.

The Present Status of Experimental Work on the Nature and Treatment of Poliomyelitis

DR. SIMON FLEXNER, New York City: It is now common knowledge that infantile paralysis, as it occurs in human beings, is readily transmitted to monkeys, though monkeys are insusceptible to the disease. The disease has not yet appeared spontaneously among monkeys as the result of contact; it is necessary that the virus pass the barriers of the external surface of the body. This is not possessed to the same degree in the human being, especially the young. There are two questions of importance: first, control by prevention; second, cure by treatment. Control of the disease by prevention is the mode of dealing with the disease which should be preferred. The fact has been established clinically that direct contact has a very important bearing on the transmission of the disease. Insects can be contaminated and be made a transmitter of the disease, but for the purpose of prevention the idea that human contact is an efficient means for the spread of the infection should be accepted. The house-fly fulfils the requirements for transmission, and it has been shown that flies contaminated with the virus can transmit it, but experiments in this line are not yet completed. Under certain conditions the virus is excreted with the secretions of the nose and throat; flies feed on these secretions, particularly among the sick, and those whose bodies are more or less paralyzed, or those who are delirious, and can become contaminated in this way. The question of therapy presents itself along two lines, one of which is serum-therapy. The value of the serum is slight, however. We possess in hexamethylenamin a drug which can act in the presence of this serum and prove of great value. Experiments have proved that it can prevent the disease in monkeys.

DISCUSSION

DR. SAMUEL S. ADAMS, Washington: I addressed a letter to every children's hospital in the country last fall asking a number of questions as to the spread of the disease. Replies to the question as to the disease originating in the hospital were invariably in the negative.

DR. A. C. COTTON, Chicago: I advocate depletion as a rational treatment; elimination of the unknown toxin; profuse catharsis; diaphoresis; diuresis and perhaps blood-letting. I also used a combination of ergot and bromids to diminish hyperemia of the spinal cord.

A Study of One Hundred Infants from Birth to the End of the First Year

DR. CHARLES HERMANN, New York: This work was originally undertaken for the purpose of determining what could be done in lowering the mortality in a series of infants by advising the mothers and supervising the infants from their birth. Briefly stated, the work was carried on as follows: From June 1, 1909, to June 1, 1910, 172 babies were born in the maternity ward of the Lebanon Hospital. After delivery the mothers were instructed in the care and feeding of infants, and a printed form containing a few of the most important points were given to them to assist the memory. Special emphasis was placed on the importance of breast feeding. They were also given a card to the Pediatric Department of the dispensary and requested to return to the dispensary within ten days after leaving the hospital. If they did not come in at this time, a postal card was sent, and if that failed, a visit to the house was made. Sick infants were to be brought to the dispensary immediately. Total number of infants born in the maternity ward, 172. Males 100, females 72. Deaths during the first year of life, 14. Number followed for one year or more, 125. Breast-fed exclusively for five months or more, 66 per cent.; breast-fed partially for five months or more, 83 per cent. The following points were demonstrated: (1) Breast milk may be made to reappear in a breast that has not functionated for more than two months; (2) a mother may believe that she has not sufficient breast milk, when, as a matter of fact, she has more than enough; (3) the great importance of proper advice to counteract the improper advice of neighbors; (4) an infant may show an insufficient gain in weight during the first three months, although the food, breast milk or artificial, may be of proper quality and quantity; at about the third month on the same food the infant will rather suddenly gain much more rapidly in weight; (5) cases presenting at different times during the first year the characteristic manifestations of the "exudative diathesis;" recurring attacks of loose mucous stools considered as one of the manifestations; (6) the importance of a baby's ward to which the very sick can be referred and the necessity of having breast milk for the extremely bad cases; (7) breast feeding may be possible in an infant even when several preceding infants of the same mother were artificially fed. Not a single death occurred in an infant that was breast-fed for more than five months; none of those that died were breast-fed at the time of death.

Recurrence of Scarlet Fever

DR. J. P. CROZER GRIFFITH, Philadelphia: Recurrence of the typical forms is a rarity, but that it does occur is supported by the testimony of many writers. A boy, 2 years old, on April 12 had nose bleed and vomiting. Next day he did not appear to be ill, but late in the afternoon again vomited. On the following day he had a scarletiform rash over the thorax and abdomen. He ran a mild course of scarlet fever. The efflorescence disappeared during the first week of illness. One week later he had some sneezing, cough, and there appeared a well-marked attack of measles. The desquamation of measles was concealed by the desquamation of the scarlet fever. The child remained well until May 14 of the following year—thirteen months later—when he became restless and feverish during the night. Twenty-four hours later he was covered with a typical scarletiform rash. There also developed a post-scarlet fever nephritis.

DISCUSSION

DR. L. EMMETT HOLT, New York: I saw one case of recurrence of scarlet fever, the first attack at the age of 7 and the second at the age of 24; both were severe and typical; in one there was an otitis and in the second a nephritis.

DR. C. GILMORE KERLEY, New York: I saw two cases of recurrence of scarlet fever, the second of which was beyond question a true one.

DR. A. JACOBI, New York: I have seen but two cases of recurrent scarlet fever, but they were decided cases.

DR. HENRY T. MACHELL, Toronto: I saw one case of recurrent scarlet fever.

Duodenal Ulcer in Early Life

DR. J. P. CROZER GRIFFITH, Philadelphia: This condition is such a rare one that the text-books take no note of it whatever. I saw two cases, the first one of which was uncertain, not coming to autopsy. The second was a child 6 months of age. Fed artificially for four weeks, he began to suffer from gastric disturbances and failed to gain in weight. Constipation developed and there was discharge of very hard feces. A milk mixture right in fat was given. Blood appeared in the vomited matter and there were dark and bloody stools. The child went into collapse, became moribund and died. At autopsy an ulcer was found just below the pylorus which measured about 5 mm. in diameter; there was no stenosis of the pylorus.

Means of Protection Against Contagious Diseases in Hospital Work

DR. WILLIAM P. NORTHRUP, New York: At the Presbyterian Hospital we use, first, the "Grille" or bed screen; this is 4 feet high and entirely encloses the child's bed. The psychologic effect is to indicate that no one is to approach. The idea is based on that of contact infection. Second, we use an examination table which enables the physician to work with comfort in intubations, aspirations, punctures, etc. A crib-warmer consists of an asbestos box containing an electric heater. The electricity sufficient for an ordinary 16-candlepower lamp is all that is necessary. Bath-tubs have been abolished, as they are thought to be a great source of infection, and marble slabs sloping to a sink have been substituted with sprays for cleansing the skin.

The Preservation of Health in School Children

DR. R. G. FREEMAN, New York City: The following are essential for the preservation of good health among school children: There should be short school hours; frequent recesses, open or well-ventilated school rooms, roof playgrounds in the cities, individual study of the backward or feeble-minded children. Every public school child should be supervised at play as well as at study. There should be a medical supervisor who should have control of the preservation of the health of school children; exclusion of all school children who suffer with colds, as well as those suffering with other contagious diseases; dismissal from school during the period of intubation of all children who have been exposed.

Diabetes in a Seven Months' Old Child

DR. P. J. EATON, Pittsburg: The baby appeared to be thriving well until December, 1910, when it had a swelling of the toe of the left foot. The following week the toe of the right foot presented a similar appearance. Toes were red and swollen, but not painful to touch. Urine was collected; specific gravity, 1.037; typical reaction for grape sugar; acetone and diacetic acid were present—over 10 per cent.

DR. A. JACOBI, New York City: I advocate the use of four drugs in the treatment of the condition: salicylic acid, arsenic, codein and atropin.

Which is Preferable in Colon Irrigation—the Long or the Short Tube?

DR. HENRY T. MACHELL, Toronto: I analyzed 200 cases. For the amount injected the short nozzle has the advantage; the fluid is retained for a longer time and the amount permanently retained is larger.

DISCUSSION

DR. CHARLES G. JENNINGS, Detroit: Dr. Yates made some interesting experiments along this same line and showed that it is practically impossible to introduce a long tube into the colon; it simply folds on itself and remains in the lower part of the bowel.

DR. A. JACOBI, New York City: It is more than thirty years since I have attempted to use the long tube.

DR. HENRY D. CHAPIN, New York City: You could get the same effect with much more safety with the short tube than with the long tube.

The Use of Malt Sugar and High Percentages of Casein in Infant Feeding

DR. J. LOVETT MORSE, Boston: I am not yet prepared to accept Finkelstein and Meyer's statements regarding their method of treatment in all disturbances of nutrition in infants which are accompanied by diarrhea. There is a strong argument against sugar as the etiologic factor in fermentation, and the treatment of fermentative conditions by a food very low in sugar and high in proteids is rational. The substitution of dextrin-maltose mixtures for lactose also seems rational. It seems that it would be possible to take advantage of what was best in the method and at the same time avoid the disadvantage of a routine food and the superfluous buttermilk by applying them in modification of the milk by the percentage method. By the use of cream containing a high percentage of fat it is possible to reduce the amount of unprecipitated casein to a very low percentage. The precipitated casein is prepared according to Finkelstein and Meyer's method, the casein from 1 quart of milk being made into an emulsion with sufficient water added to make 1 pint.

DISCUSSION

DR. A. JACOBI, New York City: The great principle in the treatment of these cases is little fat, little milk sugar and more carbohydrates.

DR. R. G. FREEMAN, New York City: The advantage of the Finkelstein method is the low fat and low sugar. While I have found it very good in children that were vomiting and had bowel trouble, children would not gain on it unless more sugar or fat was added.

Mikulicz' Disease with Report of a Case of Lymphatic Leukemia in a Child with Marked Enlargement of the Salivary Glands

DR. WILDER TILESTON, New Haven, Conn.: A child 2 years old, had large tumors in both parotids, both submaxillary glands, the lachrymal gland not being involved. Autopsy showed that there could be but little doubt that it should be classified as above. The term should be reserved for those cases of chronic bilateral enlargement of the salivary and lachrymal glands in which pseudo-leukemia and leukemia can be excluded. The cases occurring in the last-named disease should be classified as pseudo-leukemia or leukemia with the Mikulicz syndrome. The cause of Mikulicz' disease is probably some infectious agent. It is likely that a number of different organisms might cause the symptoms of the disease.

LOUISIANA STATE MEDICAL SOCIETY

Thirty-Second Annual Meeting, held at Shreveport, May 30-June 1, 1911

(*Concluded from page 42*)

Antityphoid Vaccination

DR. C. C. BASS, New Orleans: Although typhoid vaccines are variable, and although there is considerable experimental work necessary before the most can be accomplished, the evidence of immunity is so strong and the amount of inconvenience and discomfort are so small that doctors, nurses and others frequently exposed to typhoid infection should take advantage of vaccination. The agglutination test should be used both to determine when immunity has been secured, and as a guide to vaccination, and also as a check on vaccines, with low immunizing powers. A quick macroscopic typhoid agglutination test can be made in one or two minutes and has many advantages over the usual microscopic test for this and other purposes. Of 247 persons whom I vaccinated, 1 has had typhoid, and in fact had it when he was vaccinated. At least six students of the medical college had typhoid during the session, but none of them had been vaccinated.

The Relation of Gall-Bladder Diseases to Disturbances of Digestion

DR. J. E. KNIGHTON, Shreveport: In a long series of autopsies, published recently by McGlenn, 506 cases of gall-stones were found, being about 6 per cent. of the total number of autopsies, and out of this entire number of 506, only 21 were diagnosed before death. It seems to me that we are forced to the conclusion that only a small percentage of the cases present atypical and characteristic paroxysms of hepatic colic, jaundice, etc. As so many gastro-intestinal lesions are associated with gall-stones, and that in many cases where no definite lesion exists there is a disturbance of gastric secretion, it is obvious that a greater percentage of diagnoses should be made than are reported.

Experience with the Modified Wassermann Reaction

DR. A. A. HEROLD, Shreveport: Out of my last twenty-two cases, I have secured thirteen positives, and nine negatives. The Wassermann reaction is a practical aid to the clinician, and some of my cases show conclusively its value. Probably, however, its greatest utility is in cases which give a perfect history of infection, but where we are not satisfied that the treatment which they have undergone has cured them. Given a case with a typical Hunterian chancre, followed in a few weeks by classical secondaries, we are justified in treating that patient without a confirmatory laboratory test. If, after leaving off treatment four to six months, he presents no clinical symptoms and gives a negative Wassermann, you may pretty safely tell him he may marry.

Influence of Southern Louisiana Climate on Pulmonary Tuberculosis

DR. E. L. MCGEHEE, New Orleans: The precipitation is above the average, the flat surface exposing so large an area for rapid evaporation, and with sandy porous sulphur-laden soil which rapidly absorbs, generating ozone and preventing humidity. A mild climate with seldom rapid changes, and more seldom extreme temperature. Though a long summer, the heat is tempered by an ocean breeze, the moisture of which is absorbed in passing through the pine forests. Hence the flat, pine-covered sandy lands, of south Louisiana especially, will not make heavy drafts on vital energy, thus hasten retrograde change, but seem to retard old age and make death more remote, as is shown by the number of prolific octogenarians living in this regio..

Cryptorchidism

DR. H. B. GESSNER, New Orleans: I have had two cases of cryptorchidism operated on by the Bevan method. In case one, primary union resulted. The final result was satisfactory, the testis remaining comfortably in the scrotum. The patient was discharged two weeks later. In case two, primary healing occurred, and the patient went home a fortnight later.

The Rôle of the Gametes in Relapsing Malaria

DR. WILLIAM KRAUSS, Memphis, Tenn.: We have recurrences of malarial fever by means of reinfection from without, by reinfection from one's own gametes, by resegmentation of macrogametes, without the aid of anophelines and reintroduction, and, possibly, by the conjugation of plastogamy, according to Craig. In any case, it should be remembered that it is just the symptomless gamete carriers which perpetuate the infection, and that every opportunity should be made use of to examine the blood of persons who have suffered from malarial attacks, and, if gametes are found, to use active and persistent cinchonization for at least thirty days. In my experience it has seemed more desirable, although I am not borne out by tropical workers, to interrupt this quinin therapy from time to time, and continue it somewhat longer. It is my opinion that a campaign directed against gametes is worth more in eradication of malaria than all the other methods combined. We will probably always have gametes; let us see that they remain sterile.

When Shall We Operate in Crushing Injuries?

DR. J. L. WILSON, Alexandria: I believe the opinion today among surgeons is that we should wait until the patient has reacted from shock and hemorrhage before any operative procedure is attempted. The length of time that operation should be delayed with safety in these cases will depend on the location of the injury, the probability of early infection, and the condition of the patient with reference to shock. I have seen a number of patients recover after severe multiple injuries of the extremities, simply for the reason that sufficient time was allowed for shock to pass before any attempt was made to operate. On the other hand, I have witnessed deaths in such cases in which the added shock of the operation hastened the end.

Conservative Surgery of the Shoulder Joint

DR. WILLIAM M. PERKINS, New Orleans: We should attempt to preserve shoulder function even though there is small chance of success. By no means should one advocate unwise conservatism; much can be accomplished by taking advantage of every opportunity for saving tissue and function, and retreating before disease only when we must.

The Abortive Treatment of Acute Gonorrhea in the Male Urethra.

DR. J. M. BODENHEIMER, Shreveport: I have treated thirty-four cases of beginning gonorrhea by sealing argyrol in the urethra. Two cases were given only one injection with prompt results. The remainder were given two and three injections. I saw untoward effects in only two cases.

Treatment of Tetanus

DR. JOSEPH D. MARTIN, New Orleans: From May 1, 1905, to January 1911, there were treated in the Charity Hospital forty-six cases of tetanus in adults. Of these twenty-eight were males and eight females. In twenty-eight cases the injury was in the foot; fourteen were due to nails and ten to splinters. Of the forty-six cases, nine recovered. The average incubation period for those who recovered was sixteen days, for those who died, seven and a fraction days. Twelve of these thirty-seven died in the first twenty-four hours. According to the records, only nineteen of the cases received serum. The dose was anywhere from ten to fifty c.c. Bromid or chloral was used in every case, the dose ranging from twenty to forty grains of bromid, and five to ten grains of chloral, every two, three, or four hours, as indicated. Twenty-two of the cases had convulsions. Trismus and pain in the back of the neck were always the first symptoms complained of. The wound should be as thoroughly asepticized as possible, freely opened, and any foreign body removed, then swabbed out with pure carbolic acid, followed by alcohol. Fifteen hundred units of antitetanic serum should be given each day at least five or six days and chloretone in thirty-

grain doses should be given by rectum. I prefer this route because by mouth it is liable to upset the stomach as the occasion arises, and I believe the respirations are a good guide to go by. When the respirations go above thirty, it means the diaphragm muscle is having a hard time and if not relieved it is only a question of how long it will be able to last. Morphin should be given only when there is pain. Liquid nourishment is to be given. A most important part of the treatment is to keep the bowels open.

Senile Hypertrophy of the Prostate

DR. A. NELKEN, New Orleans: My preference is for the suprapubic operation. It is undoubtedly the easier and the more rapid one. The danger of wounding the rectum, with all the disagreeable sequelæ of recto-urethral fistulæ, is absent. The vesical cavity can easily be inspected by the eye, if thought necessary, but, as a rule, the trained finger will give as much or more information. I have never had insurmountable difficulty in removing a fibroid prostate. The careful use of the scissors, although very rarely required, will prove of great assistance in clipping restraining bands, where the prostate will not peel readily from its sheath. I have had but one case of troublesome hemorrhage, and its management was not difficult. I have operated on seventeen cases of enlarged prostate, with three deaths. My deaths have all occurred in Charity Hospital cases, where conditions both as to the physical condition of the patient and the after-care were not ideal. One of my patients died of pneumonia two days after the operation, due to exposure during the preparation of the field for operation. Another patient died of kidney failure three weeks after being operated on, and the third death was in a man of 84, a bad surgical subject, and a case which I do not believe that now, with a larger experience, I would attempt to do a radical operation in. In the remainder of the cases that I have been able to follow, the ultimate results have been uniformly good.

Intermittent Hydronephrosis.

DR. MARION SOUCHON, New Orleans: I saw a typical case of intermittent hydronephrosis in a male, aged 45, due to the passing of renal calculi. I performed perineal-ureterolithotomy.

Primary Extra-Uterine Abdominal Pregnancy

DR. I. M. CALLAWAY, Shreveport: A woman, aged 26, entered the hospital Feb. 25, 1911. Her case was considered one of ordinary pregnancy. After one or two weeks she as attacked with nausea and pains in the abdomen. Thinking it as the beginning of labor, I examined her and found the fetal head in the left hypochondriac region. The abdominal walls were so thin that the hands could be palpated and observed to move. The fetal heart was heard and movements were freely observed. In the right iliac region a mass was palpated, which afterward proved to be the enlarged uterus with placenta attached. Vaginal examination showed long patulous cervix in the right pelvis, and a mass of feet and knees in the left pelvis. The woman gave a history of hemorrhage from the uterus lasting six weeks, about seven and a half months previous to this examination, then cessation as to time of delivery. During this period she, at times, had a whitish membranous discharge, and with these symptoms a diagnosis of abdominal pregnancy was made. As the fetus was alive and the woman in good condition I delayed as long as possible abdominal section, hoping to let the child go to viable age. This was her third pregnancy; the two other labors were normal, the youngest child being 2 years old. On March 29, 1911, after a severe attack of general abdominal pain and vomiting, I opened the abdomen. The abdominal wall was very thin. I found a very friable placental sac, which ruptured on handling, and a fully developed child was delivered.

Enterostomy as a Life-Saving Measure

DR. F. W. PARHAM, New Orleans: I believe the guide in doing enterostomy in all cases should be the condition of the patient and the duration of the obstruction. If his condition should permit, the obstruction should be found and radically treated, otherwise enterostomy should be done. No matter what the nature of the obstruction, enterostomy should be preferred, if the patient's condition does not warrant radical intervention. But the ease and safety of the operation must not be made the excuse for avoiding a responsibility which the surgeon should shoulder. Enterostomy must be reserved for the exceptional cases where relief must be quick and no radical procedure is justified. The indication being clear, we must do the enterostomy in the simplest and safest way.

Other Papers Read

The following papers were also read:

"Albuminuric Retinitis of Pregnancy, With Detachment of the Retina," by Dr. M. Feingold, New Orleans; "Diagnosis of Abnormal Stomach Evacuations," by Dr. F. E. LaMothe, New Orleans; "The Pathology of Pregnancy," by Dr. George B. Lawrason, Shreveport; "Treatment of Old Intracapsular Fracture of the Hip Joint, Illustrated," by Dr. Edward S. Hatch, New Orleans; "Epithelioma of the Lip," by Dr. J. C. Willis, Shreveport; "Insurance Companies in Their Relations to Sanitary Science," by Dr. J. H. Florence, Houston, Texas; "The Various Anesthetics as Applied to Obstetrical Work," by Dr. A. C. King, New Orleans; "Surgical Relief of a Case of Gastroptosis," by Dr. M. H. McQuire, New Orleans; "The Office Treatment of Rectal Diseases," by Dr. Charles Chassaignac, New Orleans; "Sanitation," by Dr. L. Lazoro, Washington; "Preliminary Notes on the Ammonia Content of the Blood Under Different Conditions," by Dr. Ralph Hopkins, New Orleans; "The Pigment and Plasmodia in the Tissues of Pernicious Malaria," by Dr. William H. Harris, New Orleans; "Vaccine Therapy in Leprosy," by Dr. C. W. Duval, New Orleans; "The Relative Value of the Neutrophilic Blood Picture as a Guide in the Administration of the Tuberculins," by Dr. Wallace J. Durel, New Orleans; "Results of My Investigations Concerning the Extent of Hookworm Infection in Louisiana," by Dr. S. D. Porter, New Orleans; "Dietetics in Typhoid Fever," by Dr. J. B. Guthrie, New Orleans; "A Case Illustrating the Dangers Following the Use of the Bladder Catheter," by Dr. S. M. D. Clark, New Orleans; "Some Notes on the Pathology of Labor," by Dr. D. O. Willis, Leesville.

THE MASSACHUSETTS MEDICAL SOCIETY

One Hundred and Thirtieth Annual Meeting, held in Boston, June 13-14, 1911

The President, DR. GEORGE B. SHATTUCK, Boston, Presiding

Officers Elected

A list of the officers elected was given in THE JOURNAL, July 1, page 32.

The next meeting will be held at Boston, June 12-13, 1912.

The report of the secretary showed that 145 new members had been admitted during the year; that the total membership June 14 was 3,361, and that there was a balance in the treasury on April 15, 1911, of $14,745.31.

In response to a communication from the Board of Trustees of the American Medical Association requesting an expression of opinion on the subject of making in the future all members of state societies *ipso facto* members of the American Medical Association, the Massachusetts Medical Society adopted a resolution stating that it "is impossible to devise a scheme whereby the desired object may be attained," and therefore that it considered the proposition "inexpedient."

The Case of G. W. Galvin

The findings and recommendations of the board of trial convened to try George William Galvin of Boston, a member of the society, on charges of advertising his methods of practice, to-wit, that he was guilty, and that he be and is expelled from his membership, were approved by a unanimous vote.

Amendment on Change of Residence

The following proposed amendment to the by-laws was offered and referred to the next annual meeting for action:

Add to By-Law 9 the following: "Any fellow wishing to change his membership from one district society to another may petition the council in writing to grant such change, stating his reasons therefor. Such petitions shall be referred to the Committee on Membership and Finance, who shall consider the petitions, shall consult with the officers of the two districts involved in the change, and shall report recommendations to the council. The council shall decide by vote whether or not such petitions shall be granted."

Suits for Alleged Malpractice

DR. G. W. GAY, Boston: Malpractice suits have little effect on a medical man's reputation or on his practice. Reputation

is established by a long process. Suits should be contested in every case to the last stage. A function of a medical society is to furnish counsel for defense of its members; seventeen state societies now do so. In New York State 147 cases have been tried and none lost. Reputable physicians recognize their duties to themselves and to the public; they give their services to poor and rich alike, gladly and freely, and to hospitals and dispensaries and receive no compensation. Members of the profession should stand together to contest all cases against them and should not compromise or settle out of court. All reputable physicians should act as a unit. Let the profession understand this and suits will be rare.

Coexistent Epidemic Cerebrospinal Meningitis and Malaria

DR. W. J. COLLINS, Northampton: I have seen three cases of epidemic cerebrospinal meningitis, one tertian malaria and one cerebrospinal meningitis coexisting with tertian malaria. The five cases came to Northampton from the same locality in Lamia, Greece, on different ships. Two of the patients died. In the case of coexistent cerebrospinal meningitis and malaria, elevation of temperature to 106 F. occurred one week after treatment, consisting of large doses of quinin for a month, had been omitted; all the symptoms of malaria returned and the malarial organisms were again found in the blood.

Why and When to Operate on Fractures

DR. F. J. COTTON, Boston: Operations should be performed only because the non-operative results are bad in certain cases and classes. I was one of the first in this community to do routine open operative work on fractures, and as time has gone on I have become more radical as the results in this field have improved. Applying plates to fractures is not a difficult proceeding. The point that is hard to settle is when to apply them. In compound fractures interference is called for perforce, and the chances of infection are greater than with the wound made deliberately. Radical intervention is indicated in nearly all fresh compound fractures. Operative fixation at the time a compound fracture is cleaned should be avoided as a rule; sometimes it is better practice to let the wound heal and cut down later to secure fixation of the fragments. The only uncomplicated fracture which should be always treated by open operation is fracture of the patella with separation of the fragments, but this statement is to be qualified by saying that non-operative treatment gives very tolerable results and is to be preferred in the aged and infirm. In all other fractures non-operative treatment should be tried first—incision being used only after failure. The use of the *x*-ray within a fortnight will test the results obtained by non-operative treatment.

After considering the proper treatment of the different varieties of fracture, I made the following summary:

Operable as a routine: Compound fractures; fractures complicated with vessel lesions; fractures complicated with nerve lesions; patella fractures; olecranon fractures; fracture-luxations, especially at the shoulder; acromid-clavicular luxations.

Usually operable after trial of milder methods: Carpal injuries; fractures of the shaft of the femur.

Often operable: Fractures of the humerus and of the leg.

Operable on occasions: In patients in good condition all fractures that promise a bad result if treated by the older methods, provided we can show good reasons for expecting a better result from operation.

Circulatory Disease. Its Prevalence in New England, Massachusetts and Boston

DR. E. W. DWIGHT, Boston: Statistics show a great improvement in mortality as a whole; that the average duration of life has largely increased, and that the chances of a new-born infant reaching the age of 30 have multiplied. But this increase in the expectation of life has taken place among the younger ages, and, while the number reaching the age of 30 has increased, the proportion of those of that age who live to be 70 has not only relatively but actually diminished.

ARKANSAS MEDICAL SOCIETY

Thirty-Fifth Annual Meeting, held at Fort Smith, May 2-5, 1911

The President, DR. R. C. DORR, Batesville, in the Chair

Officers Elected

A list of the newly elected officers appeared in THE JOURNAL, May 20, p. 1486.

The president was given authority to appoint a state organizer. There are seventy-five counties in the state, sixty-two of which have component societies, leaving thirteen unorganized.

State Medicine and Public Hygiene

DR. ST. CLOUD COOPER, Fort Smith: Medical men are the logical guardians of the public health, and by reason of the tireless investigations and assiduous labors of the profession, the span of human life has been sensibly lengthened; unhealthy places made habitable and diseases formerly virulent have lost their terrors. Thousands of babies are saved annually by better milk and proper care.

The Control of Tuberculosis

DR. J. D. SOUTHARD, Fort Smith: Conscientious, energetic, patient effort should secure the cooperation of the laity, and we should educate the laity as to the value of pure air. Ample provision should be made in every household for fresh air supply. Ventilation of public halls, conveyances, churches, schools and lodges should receive proper consideration. Every public-spirited citizen should lend his sympathy and support and join in a strong effort to abate its ravages by prophylactic measures.

Sanatoriums and Hospitals for Tuberculosis

DR. J. S. SHIBLEY, Paris: Arkansas contributes 3,000 lives annually to this disease. Our only salvation lies in prevention. Every county should have a tuberculosis hospital. Every community must handle the problem within its own borders. No single state institution can meet the needs of the commonwealth.

Recent Legislation

DR. R. C. DORR, Batesville: I wish to congratulate the society on the supreme court decision sustaining the medical practice law, giving the state board authority to revoke a license for illegitimate practice. Candidates for license should be required to make several laboratory tests in addition to the written examination. Arkansas should have a state hospital for inebriates and sufferers from drug addictions, after the plan of Iowa and Minnesota, where very satisfactory results are reported. Statistics gathered at the Iowa institution show that nine-tenths of the victims contract these habits between the ages of 15 and 39, the reproductive period, when families are reared and fortunes accumulated; therefore, the economic value of such a safeguard cannot be overestimated.

Tabes and Pseudotabes

DR. E. P. BLEDSOE, Little Rock: All the so-called parasyphilitic diseases are a single morbid entity. When recognized early and subjected to vigorous antisyphilitic treatment, prompt recoveries may be expected with remission of all tabetic symptoms. In true tabes we have parasyphilitic conditions in which antisyphilitic remedies are useless. In pseudotabes we deal with syphilitic spinal or cerebrospinal disturbances which are true, though rare, tertian manifestations—therefore amenable to vigorous antisyphilitic treatment.

Correlation of Diseases of the Digestive Tract and Respiratory Organs

DR. E. G. EPLER, Fort Smith: The morbid conditions created by sluggish kidneys are often so masked as to be discovered only by autopsy. Records of the Massachusetts General Hospital showed 50 per cent. of error in the diagnosis of interstitial nephritis. Many pathologic disturbances are directly traceable to deficient elimination by the kidneys. Early and accurate diagnosis is important. Alcoholics, tobacco, caffein, nitrogenous foods, nervous and muscular strain are harmful. Treatment should consist in the administration of calomel, digitalis, strophanthus, sweet spirits of nitre, extract of broom corn, honey, American hemp, physical exercise, good hygiene, hydrotherapy.

Rheumatism

DR. M. G. THOMPSON, Hot Springs: Rheumatism is a by-product of gastric atony, torpid liver, sluggish kidneys. Meat-eaters bear the brunt. Heroic purgation is indicated to abort acute symptoms. Faulty elimination and stranded waste products are the prime cause. Hydrotherapy—abundant draughts of pure water are strongly recommended.

Serotherapy

DR. SAMUEL STERR, Hot Springs: There has been a gradual decline in the use of gonococcic bacterins and vaccines. Inability to secure results has brought about the use of mixed injections of heroic size. The outlook in the treatment of chronic gonorrheal infection seems discouraging. Renewed attention is being given to auto-intoxication, faulty metabolism, insufficient or excessive secretions and elimination. Gratifying results have been secured by the Wassermann reaction in diagnosis. The therapeutic value of salvarsan has not yet been settled definitely; but if not a specific, it promises to be a valuable adjunct in treatment. I would warn as to the probable harm from false confidence inspired by temporary abatement of symptoms.

Prevention of Syphilis

DR. ERRETT MYERS, Hot Springs: I believe an increased prevalence of syphilis is manifest. The spread is due to ignorance, immorality and poverty. There is need for a united effort by profession and laity along moral, ethical, legal and medical lines. The systems of frequent medical examinations instituted in some parts of the world have proved futile as a prophylactic measure. Sociologic problems demand earnest effort and effective work on the part of all. The public should be enlightened, social reforms instituted, habits readjusted to correspond with modern sanitation, instruction of children physical examination of applicants for marriage licenses, better pay for working girls, abolition of dives, intelligent probation system for old offenders, rescue homes, investigation and suppression of fraudulent employment agencies, laws making centers of evil public nuisances, frequent rotation of policemen, women to be employed on the police force, vigilance in public parks, less liberty for children, except under parental watch care, or supervision and protection of competent guardian.

Gangrene of Skin

DR. W. R. BATHURST, Little Rock: My case is of ten years duration. Patient, male, aged 45, used tobacco and stimulants; Wassermann negative; microscope negative; symptoms believed to be due to vasomotor spasm induced by faulty metabolism. Palliative measures: Alternate binding and releasing arteries at elbow; prognosis uncertain, but hopeful.

Surgical Treatment of Trachoma

DR. ROBERT CALDWELL, Little Rock: Trachoma is present in 60 per cent. of the inmates of the Arkansas State Institution for the Blind. Where granulations are numerous and large or papillary hypertrophy present, I recommend thorough rolling with Knapp's roller forceps under anesthesia with ether; remove all granulations; dry conjunctiva with cotton soaked in bichlorid solution, then milk well with Prince's forceps; be careful not to injure the cornea. Toilet: 1-500 solution bichlorid; irrigate well with normal salt solution. Apply iced cloths for thirty minutes; at intervals of two hours, for the next two or three days; follow with appropriate medication till conjunctiva is negative. For hypertrophied conditions not showing granulations massage with boric acid. Instil a few drops of 4 per cent. cocain solution at intervals of five minutes, three times. Results probably due to inflammation set up by the massage. Excellent results have been obtained from external canthoplasty in trichiasis, pannus, "wild hairs," etc. Entropin for chronic cases but rarely until after canthoplasty. Believe failures in entropion operation are due to not having a canthoplasty first.

Splenectomy Following Gunshot Wound

DR. PRESTON HUNT, Texarkana: A young lady was injured by a 32-caliber pistol ball. The missile entered the abdomen at the median line, ½ inch below the apex of the xiphoid cartilage, penetrated the anterior wall of the stomach about the junction of the middle and left third, and made its exit at the fundus just below the cardiac opening, passing through the spleen, perforating the diaphragm and penetrating the inferior part of the lower lobe of the left lung, passing between the eighth and ninth rib and finally lodging under the skin. Operation: Perforations sutured; spleen excised; vessels ligated; incision closed by layers without drainage; gave water by stomach in three days; nourishment fourth day; semi-solid on eighth day after operation; fever developed on third or fourth day. Put in drainage, pus was discharged rather copiously for ten days, after which the wound closed by granulation. Blood-count, 45,000 leukocytes, with 25 per cent. polynuclear cells; 45 per cent. hemoglobin. Patient was given iron, quinin and strychnin with piper nigra for four days, when examination showed the hemoglobin increased to 85 per cent. At present it is 95 per cent., with 3,800,000 red blood-cells; 13,000 leukocytes. Patient now enjoys perfect health; blood is about normal.

Treatment of Fractures

DR. J. A. FOLTZ, Fort Smith: Constant vigilance and thorough examination are important in the treatment of fractures. Best results are obtained from wood fiber splints and Lane splint; see that the injured limb corresponds in contour with its fellow; anesthetize always for foot reductions; remove splints and examine weekly, except in plastic surgery. Murphy's method of plastic surgery is best for injuries to the leg. The Roentgen ray is of great value. Amputation is rarely necessary.

Obstetrics and Gynecology in Country Practice

DR. FRANK B. YOUNG, Springdale: The country obstetrician's armamentarium should comprise an ample supply of all the articles likely to be needed in accouchement; it should be packed in an ordinary traveling bag of liberal size, the obstetrical case not being large enough. The confidence of community will be readily bestowed on the careful, honest, clean operator. I prefer oil cloth or rubber sheet to cover the bed. Immediately after delivery examine for tears; sterilization of instruments by boiling, and insist on thorough sterilization of all accessories. In major gynecology skilful assistance is necessary; zealous bystanders should be excluded from active participation. Gloves do not diminish the sense of touch. Thorough asepsis and technic are the cornerstone of a successful practice.

NORTH DAKOTA MEDICAL ASSOCIATION

Twenty-Fourth Annual Meeting, held at Fargo, May 9-10, 1911

The President, DR. H. H. HEALY, Grand Forks, in the Chair

Officers Elected

A list of the newly elected officers was published in THE JOURNAL, May 20, p. 1489.

What the Association Has Done

DR. H. H. HEALY, Grand Forks: This is an era of preventive medicine. Perhaps the best work has been done by the anti-tuberculosis league. At our last meeting the president was directed to appoint a special committee to draw up a new medical practice act, to collect money to defray the expense of the campaign, and to push the matter by all honorable means until it became a law. A committee of five was appointed soon afterward. This committee began the work and kept at it in the face of great obstacles until a very good medical practice act was passed. The present law raises the standard of medicine in the state very materially; provides a good reciprocity clause and protects the public from many classes of medical fakers. A medical defense scheme was advocated by my predecessor and, agreeable to his recommendations, a committee was appointed to perfect a plan for the association to protect its members against malicious malpractice suits. I believe this plan would not only give us insurance for a fraction of the cost we pay commercial companies, but, better still, it would tend to make membership in

our association more desirable and would work for the benefit of all concerned. I recommend that the association dues be raised to at least $5. There is not a man in the state who would feel giving twice that amount. There should be sufficient money in the treasury so that it would not be necessary to call for contributions when something special arises. With the additional amount we could do more charity work, pay our secretary more, demand more of him and always have money on hand for an emergency.

Syphilis: Recent Advances in Diagnosis and Treatment

DR. JOHN MILTON ARMSTRONG, St. Paul, Minn.: Two lines of investigation are directly responsible for the advance in syphilology. These two activities in research—the study of animal parasitology and the problem of immunity—led to the discovery on the one hand by Schaudinn, in 1905, of the *Treponema pallidum*, and on the other hand, in 1906, by Wassermann of the reaction which bears his name. In addition to the above, due credit must be given Metchnikoff and Roux, who successfully inoculated apes and monkeys with the disease in 1903, and to those following them who have produced the disease in laboratory animals. From our present knowledge, then, we may definitely define syphilis as an eruptive treponemosis, inherited or acquired, characterized by an initial lesion of infection, followed by an acute generalized eruption and by the possibility during the whole life of the individual of new lesions in accord with the persistence of the virus in the organism. Our knowledge of syphilis has been greatly added to during the last few years, and the newer studies have proved much in the laboratory that was suspected or known before from clinical observation.

Clinical observation is of vast importance to us, as practitioners, who are more interested in the welfare of our patients than in academic knowledge. Clinical methods will never be superceded by laboratory findings to the extent one might be led to believe. Laboratory methods will only be used to confirm and aid us in diagnosis, prognosis and treatment. It is in the primary stage of syphilis that our patients are most anxious to know whether the disease is syphilis or not. As early treatment has a great effect on prognosis, early diagnosis is extremely important. Mercurials applied to a chancre, or vigorous treatment by mercury or salvarsan lessens the chances of finding the parasite. Treatment in syphilis in the past as in the present has been mercury with iodin as an adjuvant. Arsenic, iron, antimony, quinin, gold and various vegetable drugs have been used, either for specific or tonic effect. Modern pharmacology and synthetic chemistry have furnished us with arsenic salts rich in arsenic with a minimum organotrophic effect and a maximum of parasitrophic action. I have used salvarsan a number of times and have noted its effects both on my own and on the patients of others. Its effect clinically in many cases has been no more than judicious and well directed mercurial treatment. It does, however, clean up mucous lesions more rapidly than mercury. Aside from the reports of others I must conclude that salvarsan is a most valuable addition to syphilo-therapy but by no means an absolute cure.

Cerebrospinal Syphilis

DR. WILL C. NICHOLS, Fargo: My study is based on a series of thirty-five cases of cerebrospinal syphilis. The series includes a few cases of tabes and of general paresis and a few on the border line where questions arose as to whether the process was an active syphilitic or a parasyphilitic lesion. Final diagnosis was ultimately based on the Wassermann reaction, either in the blood, spinal fluid or both. In all cases of hemorrhage or thrombosis we were often surprised by obtaining a positive Wassermann, especially was this true in cases where the early onset of the focal symptoms raised the question of whether the vascular lesion was dependent on a specific basis. In summing up the features of a characteristic cerebrospinal syphilitic, we find that the striking thing is the multiplicity of lesions of brain and cord giving diffuse symptoms dependent on pathology present. Indefiniteness and variability in symptomatology nearly always suggestive of a diffuse process. The unusual and unexpected combination of focal signs which can only be attributed to more than one lesion and the peculiar constancy with which ocular findings occur, all unite in forming a syndrome which in its very indefiniteness characterizes cerebrospinal syphilis. The outcome of these cases depends directly on the pathology present and the time in which proper treatment is instituted. When nervous tissue is destroyed, no amount of treatment will cause it to resume function. The varieties most amenable to treatment are the meningeal, especially in the early stages of round-celled infiltration. In the treatment of nervous syphilis neurologists rely chiefly on mercurials intensely used.

DISCUSSION

DR. EDWARD S. JUDD, Rochester, Minn.: What Dr. Armstrong said about the use of salvarsan is very important. We read enough about it in the journals and from what we see and hear we might be led to believe that one dose will cure every case of syphilis. What was said about continuing the treatment with potassium iodid and mercury or treating with mercury alone or with salvarsan is important. I made a list of cases with results obtained with the use of salvarsan, and some of the untoward results. I have given sixty-one doses of salvarsan, fifty-two were intravenous and nine subcutaneous. About 60 per cent. were very much improved right at the start. I have not had any cures because the first injections were given not more than nine months ago. The most marked improvement I have seen so far has been in cases of syphilitic lesions of the nose and throat. A number of cases injected, within two or three days following injection, were cured; no sign of any lesion, and one of the patients had a large ulcer on one tonsil. We treated two cases of general paresis with salvarsan and both patients gave a positive Wassermann. One was benefited, or thought he was, but in a month he was so much worse from general paresis that he could not come back for treatment. Another general paresis case shows a result of treatment we have not seen or heard of in literature, and that is that the optic nerve atrophied shortly after the injection. Whether that is something new or not, I do not know; it was just the one nerve, but it was very extensive. We have treated several cases of tabes in which it has done very well, temporarily at least. One patient in a spastic condition was so bad that he was walking on crutches, and in ten days after treatment he was able to walk with a cane. Another man with diabetic paresis claimed to be benefited by the injection, but returned a month later much worse than he had ever been before. We have had no mortality, but that one case of optic neuritis should be considered. We had one small spot of gangrene following intravenous injection, and six mild cases of cellulitis following subcutaneous injection. Forty-five out of fifty-nine gave a positive Wassermann reaction, or 9 per cent.

DR. LAYTON SABLES: There is no neurologic lesion in which there is a greater variability or a wider range of multiplicity of symptoms than cerebrospinal syphilis. The point to emphasize is the importance of taking the Achilles jerk. We find cerebrospinal syphilis and tabes much more apt to be followed by the Achilles reaction than knee-jerk. You will find an almost constant rigidity and variability of pupillary findings. Another point I wish to emphasize particularly is the advantage of treatment in the active stage of the cerebrospinal syphilis. When you get sclerosis in any part of the cerebrospinal system the treatment aimed to dissolve or remove the conditions that exist in the active gonorrheal stage are not going to be of any value. The treatment does cure cerebrospinal syphilis; it does not cure sclerosis. I want to commend the author for urging the leaving out of consideration all functional disturbances such as neurasthenia and hysteria, until all organic lesions have been considered. We are too prone to set down minor complaints to neurasthenia or hysteria when, if we should make a more careful study, we should find organic lesion.

DR. W. A. JONES, Minneapolis: This is an age of doubt and suspicion. Many people who come into physicians' offices are under suspicion of having syphilis, and my practice is to give them the benefit of the specific doubt and treat them on that basis. It is said of most neurologists that when they

fail to find a remedy in a nervous disease they give anti-syphilitic treatment, and they often prove the existence of syphilitic lesion. The more I see of nervous syphilis the more I see the existence of lesions in no definite portion of the nervous system. The treatment of syphilitic troubles depends on the individual and his history; it depends, too, on the usual method of procedure. Most of these cases are benefited first or last. They should be carefully looked into for a period of one or two weeks; they should be given a period of rest and observation and then the line of treatment can be suggested to be followed. It does not do in all cases to inflict them with mercurial or arsenical treatment; it is necessary first of all to put them in condition where they can be taken care of without drugs. In many apparently hopeless cases the symptoms can be relieved by anti-syphilitic treatment. It is only the old cases, of long standing, where arterial occlusion takes place, that might be given up from the start.

DR. J. A. GISLASON, Grand Forks: In the clinics of Dimmer and Fuchs there is quite a difference of opinion as to the effect on the eye after using salvarsan. In the Dimmer clinic they unqualifiedly condemn the use of salvarsan on account of the optic neuritis, which they claim it causes; they claim more cases of optic neuritis in syphilitics that have been injected with salvarsan than in those treated by the old method. In the Fuchs clinic, they think the proportion of syphilitics presenting optic neuritis is just about equal with the new and old treatment. In the Dimmer clinic their cases of optic neuritis are nearly all unilateral, they have not had a case where there was bilateral optic neuritis present. Some of the men in Fuch's clinic seem to think if it was caused by salvarsan it would most likely be bilateral. In the German clinics, they seem to think that salvarsan does not do very much good in old cases, and in gonorrheal clinics they think the earlier the injection is made the better. They like to see a case as soon as there is a suspicion of infection, making daily examinations and when they find a lesion which they think will become a sore, they make a bacteriologic examination until they find the spirochetes, when they make the injection. In this way they hope to get a portion of the poison while it is circulating in the blood. After it is known that a patient has syphilis on account of the finding of the spirochetes they start the ordinary old-time treatment, and in this way the most conservative men hope to limit the disease to a period of four months instead of four years.

DR. H. A. BEAUDOUX, St. Paul: I want to emphasize the point of early diagnosis of syphilis for the reason that prognosis depends on the early diagnosis because that means early treatment. The Wassermann reaction in the second and third week chancre, was present in 75 per cent. of my cases. I have a case of chancre on the interior turbinate of the nose, a very unusual site, as it occurs usually on the septum. As to untoward results after giving salvarsan, I have had cases with a great deal of pain.

The Early Symptoms and Diagnosis of Pulmonary Tuberculosis

DR. J. L. ANDERSON, Powers Lake: Tuberculosis is accountable for from 11 to 15 per cent. of the total death-rate in the United States and this could be greatly reduced if we were more alert and diagnosed more cases in their incipiency. In no other disease does the restoration to health and usefulness depend so much on the detection in its incipiency. In a large percentage of cases the evidence is sufficient to make a diagnosis if we note the symptoms and make a careful physical examination. The source of infection is important, but the tracing of an individual case to an infective origin is a matter of great difficulty on account of the endemic character of the disease. In the apparently healthy we often attribute the development of tubercular symptoms to a cold or grippe and make no physical examination. The person who is subject to a series of colds or an anemia of vague origin calls for a thorough examination. A persistent temperature is of great import in the early diagnosis; the record should be kept for a period of a week and the readings taken four times a day. Expectoration in the early cases does not reveal much; vague pains in the chest are of little significance, but pain in the super or infraspinous region, especially, is due to the hyperesthesia of the muscles over diseased lungs. Hemoptysis may be the first symptom that will cause a patient to consult a doctor. In some patients their complexion acquires a peculiar yellow tint while others suffer from a marked degree of anemia. Night sweats belong to the later stages of pyrexia and excavation. The early signs are best demonstrated by auscultation. The tuberculin test should not be put on the same basis as the clinical thermometer, history and physical examination. The value of the *x*-ray in the diagnosis of an incipient case is a disputed point. In the hands of an experienced man a great deal may be learned, but the majority of observers think that the older methods of examination give more trustworthy indications of the disease. The important points are: First, that tuberculosis has a definite history unlike that found in any other disease; second, afternoon tiredness which may or may not be accompanied by flushing of the face; third, slight rise in temperature in the afternoon and evening, which persists day after day; fourth, slight cough or huskiness of the voice accompanied by the expectoration of a little mucus; fifth, slight loss of weight; sixth, tachycardia, especially noticed in the afternoon or after slight exertion.

DISCUSSION

DR. JAMES GRASSICK, Grand Forks: In the Ruillard Sanitarium, in Massachusetts, the record of cured cases that have been detected in their incipiency is 78 per cent.; those fairly well advanced only 50 per cent. and in those still further advanced only 25 per cent. of cures. The history of the case has to be taken into account more than the physical facts. The disease will be latent a long time before we can detect it by any physical signs. The surroundings of a patient, his manner of life, his work hours and his business should be taken into consideration, and any deviation from the normal should be noted. If you wait until you get evidence of disease through percussion, the disease has already become well advanced; auscultation will give you earlier signs. The tuberculin test is one of great value, especially the negative side of it. It is well established that from 70 to 90 per cent. of the whole population have at some time in their lives been infected with tuberculosis, but there have been manufactured antibodies, and these antibodies, when you inject the tuberculin into the body, will cause the body to react and you have a reaction of tuberculin when there is no active tuberculosis present whatever.

DR. J. E. ENGSTAD, Grand Forks: In my experience the primary test of tuberculin is the only one we can rely on. After tuberculin has been used once antigen is produced, and, if it is desired to test the patient again, the patient will not show a reaction, due to the antigen produced by the first test.

DR. J. L. ANDERSON, Powers Lake: In the house treatment of school children up to the age of 14 in Germany only 30 per cent. were definite, even suspicious cases, so that the tuberculin test, although positive, is of small value and does not show that all tubercular cases react. In regard to the injection of tuberculin, it depends on how long a time has elapsed before the second injection is given whether the first injection has any effect.

AMERICAN GYNECOLOGICAL SOCIETY

Thirty-Sixth Annual Meeting, held at Atlantic City, N. J., May 23-25, 1911

(Concluded from page 1915)

Function of the Ovary

DR. ROBERT T. FRANK, New York City: Both from anatomical evidence and functional behavior the active portion of the corpus luteum must be regarded as an epithelial structure. A sharp distinction should be drawn between proœstrum and œstrum—menstruation is the homologue of proœstrum. Proœstrum and maturation of follicles coincide in all mammals, but as yet no proof has been forthcoming that maturation actually causes proœstrum. The period of desire (œstrus) is the climax of the preparatory changes occurring during proœstrum and probably due to the same causation. Ovulation is the end result of follicular maturation. In some spe-

cies it occurs during or immediately after oestrus, in others the bursting of the follicle is postponed for months. Such differences in time relation are most probably accounted for by the rate of growth of the ovum and follicle. Ovulation may be accelerated by coitus. Ovulation is inhibited by the corpus luteum. The corpus luteum sensitizes the uterine mucosa and thus renders it responsive to mechanical stimuli with resulting formation of maternal placenta. The corpus luteum is essential in the early part of pregnancy as the ovum fails to obtain a foothold unless the uterus is sensitized. The corpus luteum lengthens the cycle by interfering with the maturation of growing follicles and ova. The factor which causes the persistence of the corpus luteum during pregnancy has not been discovered. Persistence of the corpus luteum may also be found independent of gravidity. Animals with interstitial glands in their ovaries may ovulate spontaneously, consequently the interstitial gland has not been shown to replace the function of the cyclical corpus luteum. Growth of the mammary gland is due to ovarian influences (maturation of follicles, activity of corpus luteum). The same factors which produce the persistence of the corpus luteum probably caused the breast hyperplasia of pregnancy.

Has the Ovary an Internal Secretion?

DR. W. H. MORLEY, Detroit, Mich.: From present knowledge it is quite evident that the ovary possesses an internal secretion, produced by the corpus luteum. In so-called ovarian insufficiency relief may be obtained with an extract of the corpus luteum, No untoward symptoms result from its use in conditions where it is indicated, even if no relief is obtained. The extract should be properly prepared and given a fair trial before it is discontinued. The active principle of the ovary is not yet isolated.

Conservation of the Ovary

DR. W. W. CHIPMAN, Montreal: The loss of the ovaries means the loss of sex influence to the individual, with all the grave disturbances in general metabolism which this loss signifies. The earlier in life that it occurs, the greater is the calamity. Ovarian transplantation seeks to replace the lost or disabled gland. In animals this procedure has been so successfully carried out that conception has followed it, even in heteroplastic transplantation. In the human only one such case has been reported, that of R. T. Morris, although in homoplastic transplantation Morris and Frank have both reported cases. In homoplastic transplantation, the cases must be few wherein an ovary in whole or in part, is healthy enough to be removed and engrafted, and is not healthy enough to leave alone. In this connection it is wise to remember the value of the ovarian ligament, for this frequently contains active parenchyma tissue. It is also generally believed that the ovary possesses considerable capacity for regenerative tissue after its partial removal, and hence an additional reason for leaving the segments *in situ*. In selected cases the ovarian extract has a definite therapeutic value, although the results in different individuals are by no means uniform. I have seen no ill-effects follow its use, and in some instances the results are almost miraculous. In some cases I have found that the addition of arsenic or small doses of the thyroid extract give more favorable results. The natural and proper conservation of the ovary consists in leaving it alone.

Behavior of the Ovary After the Removal of the Uterus

DR. R. L. DICKINSON, Brooklyn: The conservation of ovarian structure after hysterectomy shows that four-fifths of the patients are free from disturbances of the surgical menopause. The results are somewhat better where both ovaries remain than where one is left or where resections are done. Where the disturbances have occurred, their character is less severe and more gradual than after bilateral removal of the ovaries. In married women, the conservation shows nearly uniform persistence of sexual desire. The practice of removing ovaries when taking out a uterus at or near the time of the menopause is strongly to be opposed, except in cases of malignant disease or when infected. Conservation after operations for incurable tubal infections leaves more tender and troublesome ovaries than after hysterectomies for fibroids, prolapse or the hemorrhages of chronic metritis. After removal of the uterus, particularly of one ovary, or a large fibroid, ovarian edema or hypertrophy is frequent. The menopause is likely to occur earlier than the average time in a woman who has lost her uterus. To preserve the functional activity of the ovary, its circulation must not be impaired. Removal of the tubes frequently comprises the ovarian blood-supply, and is a delicate and unnecessary adjustment. Barring disease and closed tubes and malignancy and tuberculosis, they should be disregarded and allowed to remain.

The End Results when Hysterectomy has been Done and an Ovary Left

DR. JOHN O. POLAK, Brooklyn: The technic of the operation and the general health of the patient have much to do with the end results. A conserved ovary, if unhealthy, will leave the patient in a worse state mentally, nervously and physically than if a total extirpation had been made. When the woman is at the age in which the menopause should occur, or when she is past the menopause, a total ablation gives the best results. The nervous phenomena are more marked when the patient is operated on, when she is in comparatively good health, with a high preoperative blood-pressure, than when the blood-picture shows anemia or toxemia. The symptoms of the operative menopause are less after extirpation for pelvic inflammation than when the ablation is done for fibromyomata. This is probably due to the associated vessel changes which are found in fibrosis. And finally, when one or both healthy ovaries should be conserved it should be done, and the younger the patient, the more necessary is conservation.

Discussion on Symposium on the Ovary

DR. SETH C. GORDON, Portland, Me.: In years past I performed a good many operations for the removal of the ovaries, and I have not regretted it. I have seen a great many women relieved by the removal of both ovaries. When we remove the ovaries, it is bad surgery to leave the uterus. I believe that when we are obliged to remove both ovaries we should always remove the uterus along with them. I do not know of any condition by which we can justify ourselves in leaving the uterus after the ovaries are removed.

DR. A. LAPTHORN SMITH, Montreal: The unfortunate part of my professional experience has been so-called conservative gynecology. I was a happy operator before I began conservative work on the ovaries. Since I have been trying to save the part of an ovary I have had nothing but trouble. I believe in removing diseased ovaries and not trying to save parts of them.

DR. W. GILL WYLIE, New York: What is done to-day is a great improvement on the past, and I would accept most of what has been said by the authors of these papers; still the experience of some of us who are older in the profession has had a bad effect in one way and a good effect in another; that is, in the days when Battey proposed the removal of normal ovaries for dysmenorrhea, hemorrhage and other conditions they were even then cured. In those days I removed the ovaries for reflex troubles in some cases, but in very few. The reason I did not do more of these operations was because I found imperfect development had a great deal to do with the ovary, and that a faulty development of the ovaries had much to do with the growth and development of the women, not only as to how she menstruated, but as to the local condition and the effect on her growth.

DR. WALTER P. MANTON, Detroit: I was the first in the Middle West, I believe, to take up the conservative treatment of ovaries. Years ago I published a list of 100 cases on which I had operated in a conservative manner and followed them carefully, and I found in that number a little over 94.6 per cent. of somatic cures and 5.6 per cent. of the women afterwards became pregnant. Since that time I have continued this conservative work satisfactorily, and the somatic cures have remained about the same.

DR. EDWARD REYNOLDS, Boston: I have been working along the lines of conservatism in the treatment of the ovaries

for many years, and I find that the conservative management of these cases, and the institution of operations for the correction of minor pathologic conditions in the ovaries have grown on me steadily, so that to-day I believe it is practically never necessary to remove all the ovarian tissue from a woman of child-bearing age, except in cases of malignancy, or tubo-ovarian abscess, or extreme inflammatory disease.

DR. J. M. BALDY, Philadelphia: With reference to the internal secretion of the ovary, until absolute and unmistakable proof is furnished along this line, I do not propose to base my surgical methods and the health of my patients on any such nonsense.

DR. GEORGE GELLHORN, St. Louis: I have used ovarian extract for a number of years, and frequently in patients who have reached the menopause, both natural and artificial, and my results have not been uniform, nor were they convincing. In the menstrual disorders of puberty the results have been a trifle better, but not constant.

DR. THOMAS J. WATKINS, Chicago: I can see no logical reason for removing a normal ovary, but I can see much logical reasoning for leaving parts of diseased ovaries, especially in young women. I have left parts of suppurating ovaries, and I have never left part of a suppurating ovary that has given any trouble afterward, the sac of the abscessed ovary being very thoroughly excised.

DR. I. S. STONE, Washington, D. C.: There is cause occasionally for leaving the uterus after the removal of the ovaries. The uterus is left frequently for the purpose of repair of intestinal injuries. It ought to be and can be used in that way. I know of nothing in my surgical work with reference to the saving of human life which has given me more satisfaction than conservative surgery on the ovaries.

DR. JOSEPH BRETTAUER, New York City: I have had a good deal of experience with the administration of ovarian extract which came from the market, with practically no results in hundreds of cases. I have had most gratifying results in fighting the disagreeable symptoms accompanying the climacteric with very small doses of thyroid, which surely is not derived from the ovary. As to conservative surgery, I am extremely loath to open the abdomen, but when I do open it, I am very rarely conservative.

DR. FRANK T. ANDREWS, Chicago: For some time I have held to a theory that every rupture of a follicle consists of a spontaneous inoculation of the patient; that every rupture of a follicle is followed by a small amount of inflammation within the pelvic cavity, and that there is a response on the part of the tissues of the patient. If the spermatozoa passing into the ova exert an influence on the female, and we get future development and maturation of the ovum, that furnishes to the female the one thing which is needed to make a great many changes in the body. It furnishes the amboceptor and allows the working of Ehrlich's side-chain theory, and therefore, you have not an internal secretion, but a doubleheaded internal secretion, a combination of substances that brings about all changes in the site of attachment of the ovum in the uterus. The changes in the ovary lead to the changes in the corpus luteum, changes in the breast and general physique of the patient.

DR. LEWIS S. MCMURTRY, Louisville: I am sure that every man at the operating table would deal with ovarian disease in practically the same way. He will deal radically with all those cases in which there are long-standing, acute infections, and he will remove infection and remove useless organs. Others have been talking about moderate degrees of cystic degeneration, which is an entirely different subject both from a pathologic and surgical standpoint.

DR. J. WHITRIDGE WILLIAMS, Baltimore: In connection with the corpus luteum, when associated with the condition of hydatidiform mole, we frequently have tumors arising from the corpus luteum of very large size. We get double cystomata of the ovary, multilocular cystomata of the size of my two hands developing on either side. These cystomata are made up of cysts, of varying size, many of them reaching an inch and a half in diameter, lined by lutein cells. Whether they are the cause of the hydatidiform mole, or whether the hydatidiform mole brings about their production, I am not prepared to state, but an interesting point is this: A recent observation shows that many of these cases, if followed for a reasonable time, after extrusion of the mole, undergo absorption, and there are a number of cases in which tumors of some size have disappeared within six months after extrusion of the mole.

DR. J. M. MUNRO KERR, Glasgow, Scotland: All of us are agreed that there are certain cases in which the ovary should be conserved. On the other hand, in cases of malignant disease of the uterus, and suppurative conditions of the adnexa, it would not be considered good surgery to conserve ovaries. In such cases the uterus, tubes and ovaries should be completely extirpated.

Vaginal Cesarean Section in Eclampsia

DR. REUBEN PETERSON, Ann Arbor, Mich.: Maternal and fetal mortalities are lower, the earlier the uterus is emptied after the first convulsion in antepartum eclampsia. Hence no time should be lost in employing the slower methods, but as soon as the diagnosis of eclampsia is established, the uterus should be emptied by the operation which will give the best results for mother and child. Vaginal Cesarean section means these requirements because it is based on sound surgical principles, is quickly performed, while its technic can be acquired by anyone familiar with the rudiments of obstetric surgery. Early diagnosis and early operation in antepartum eclampsia will lead to a marked reduction in both the maternal and fetal mortalities.

Anteflexion of the Cervix and Spasm of the Uterine Ligaments in Relation to Retroversion, Dysmenorrhea and Sterility

DR. EDWARD REYNOLDS, Boston: For about eight years the muscular character of the so-called uterine ligaments has seemed to me of clinical importance in connection with the constantly accumulating evidence of the frequency of their spasms, which I have observed in the course of clinical work. This muscular tissue exists in especially important quantities in four situations, throughout the uterosacral ligaments, at the bases of the broad ligaments, along the upper edges of the broad ligaments, and in a sheath underlying the bladder and attaching the cervix of vaginal vault to the descending rami of the pubes. The insertion of the anterior vaginal wall into the cervix is also a uterine attachment of much importance. This wall is largely non-muscular and is attached at one end to the cervix and at the other to the arch of the pubes. Physiologic study of the muscular action of these structures is difficult or impossible since they are peculiar to the human female, and are commonly seen during life only when their possessor is under anesthesia. Their pathologic spasms could, however, be appreciated by the vaginal and rectovaginal touch, and can be shown to be spasms by the fact that they disappear under anesthesia and reappear spontaneously after the anesthetic is withdrawn. I believe that many cases of marked anteflexion of the cervix which are free from symptoms are also those which are free from spasmodic exaggeration of the deformity, and those which are attended by symptoms are usually the subjects of such spasm.

Epilepsy and Pregnancy

DR. G. B. MILLER, Washington, D. C.: Epilepsy has little direct influence on the course of a pregnancy, except that traumatism produced by epileptic seizures may cause a premature labor and abortion. The influence of pregnancy on epilepsy is of greater interest. In a certain proportion of cases the toxemias of pregnancy may influence very unfavorably the epilepsy, even to producing the status epilepticus. In women with epilepsy where pregnancy apparently causes the convulsions to become more frequent or more severe, one should always consider the necessity of terminating the pregnancy. In cases of pregnancy in epileptic women, one should watch with extreme care for indications of toxemia or the premonitory signs of eclampsia, and should put an end to pregnancy at the appearance of symptoms of much less gravity than would indicate this procedure in women who are not the subject of disease.

Repeated Ectopic Pregnancy, with a Report of Four Cases

DR. RICHARD R. SMITH, Grand Rapids, Mich.: In two of my cases the interval was about two years; in the others one year. In two of these women these pregnancies constituted the only ones, the other two having previously borne children. I have found about 170 similar cases in the literature, to which I add these, and a number of others obtained through correspondence. In a total of 2,998 cases, there have been 114 recurrences, or about 3.8 per cent. I point out the difficulty of following up hospital cases over a period of years to know of their welfare and the fact that age, social condition and lapse of time since operation are not taken into consideration in these figures. I believe the percentage will be higher in cases where a patulous tube is left and social conditions are favorable to pregnancy. These cases of repeated ectopic have occurred, as might be expected, in the child-bearing age and in the decades in which normal pregnancies are most prevalent. There was a high death-rate following the second ectopic, but later reports seem more favorable and apparently not higher than that following a single ectopic. In 116 cases of second ectopic, there were 101 recoveries, and 15 deaths with or without operation. The average length of the interval was about thirty months, but no rule can be formulated as to when a second ectopic may be expected. A considerable number occurred in less than six months. Baldy reports one occurring twelve years after the first. The percentage of interval pregnancies is small; most of the recurrences took place in the opposite tube, but a number are reported as recurring in the same one, also several ovarian pregnancies (doubtful), and an abdominal followed by a tubal. I have been unable to obtain exact data in any considerable number of cases as to further normal pregnancies following an ectopic, but believe them to be less frequent than ordinarily assumed. The matter of the disposal of the other tube should be discussed with the patient before operation whenever practicable. In young women and those desiring children the opposite tube may be saved; in those who have already borne as many children as desired, it should be sacrificed rather than to submit the woman to the distressing possibilities of a second accident. The appearance of a tube when patulous is no criterion as to its capabilities.

Medicolegal

Liability for Disfiguring X-Ray Burn—Measure of Physician's Legal Responsibility—Damages for Mental Suffering from Physical Injury

The Supreme Judicial Court of Maine overrules exceptions to a verdict in favor of the plaintiff for $3,500 damages in the malpractice case of Coombs vs. King (78 Atl. R. 468). It says that in 1901 the plaintiff was treated by the defendant for what she termed "scrofulous glands of the neck," and what the defendant said were enlarged "lymphatic nodes or glands." They were on both sides of the neck. The defendant cut them out. In 1903 bunches again appeared on the neck, one on the right side under the chin, and the other the plaintiff said on the right, and the defendant said on the left side. The defendant diagnosed the trouble as being possibly Hodgkin's disease, and advised *x*-ray treatment. It turned out not to be Hodgkin's disease, but that was immaterial, because it was not questioned that *x*-ray treatment was proper for the real trouble. However, an unintended result of the treatment was a very severe and greatly disfiguring *x*-ray burn on the left side of the plaintiff's neck and lower part of the face.

It was conceded that the defendant was a physician of great learning and skill. What the plaintiff rested her claim on was the proposition that the defendant failed to use ordinary care, which is reasonable care, and to apply his best judgment, in his treatment of her case. And, while she specified several particulars, the court notices only one, namely, want of attention and watchfulness.

The mere statement of the various phases of the *x*-ray treatment shows clearly, the court says, that it cannot be administered according to fixed and unvarying rules. All the medical witnesses concurred in saying that it is necessary to watch for the manifestations of burning during the entire period of treatment. The treatment should be adjusted to the person and the exigencies of the case. The physician may vary or temporarily discontinue the treatment. He must watch, examine, and use his best judgment. This was what the plaintiff said the defendant did not do, and what the defendant said that he did do. The court does not deem it necessary to undertake to analyze the testimony, it being sufficient to say that if that offered by the plaintiff was true, she was entitled to hold her verdict. On the other hand, if the jury should have adopted the version of the defendant, the verdict was wrong. There was nothing in the plaintiff's story which was inherently improbable or inconsistent. Unless the jury was not warranted in believing that story, the court cannot interfere. The court cannot substitute its own impression for any findings which the jury was authorized to make. While the burden was on the plaintiff to satisfy the jury of the defendant's liability, after verdict for the plaintiff the burden was on the defendant to make it clearly appear that the verdict was wrong, which, in the opinion of a majority of the court, he failed to do.

It was argued for the defendant that his responsibility must be considered with reference to the science of *x*-ray treatment as it was understood in 1903. That was true; yet it appeared from his own testimony that in 1903 he knew that *x*-rays could burn, and knew of the need of watchfulness to detect the signs of burning, in order that it might be prevented.

The measure of a physician's legal responsibility has been stated many times by this court. He contracts with the patient that he has the ordinary skill of members of his profession in like situation, that he will exercise ordinary or reasonable care and diligence in his treatment of the case, and that he will use his best judgment in the application of his skill to the case. The physician is not an insurer. He does not warrant favorable results. If he possesses ordinary skill, uses ordinary care, and applies his best judgment, he is not liable even for mistakes in judgment. Medical science is not yet, and probably never can be, in many respects, an exact, certain science. The practitioner cannot be expected to know, or be bound to diagnose correctly, that which is unknowable, as many of our hidden ailments may be. The rule of liability is not a hard one. It is a reasonable one. And the burden is on the plaintiff to show a malpractice.

Lastly, the court holds that when, as in this case, there is mental chagrin, mortification or discomfort at disfigurement, not independent of the physical injury, but the direct and natural consequence of it, the plaintiff may have damages awarded for it. There is good reason for the rule. The disfigurement is a physical injury. It is a continuing injury. The mental suffering may continue with it. The mental suffering is a real injury. It proceeds necessarily and inevitably from the physical injury. It is a natural consequence of the injury. Compensation, omitting this element, is not full compensation. One might be made repulsive to the sight for life with comparatively little physical injury, and yet, according to the rule contended for by the defendant, be entitled to but little compensation. The reason given in some cases that the amount of mental pain caused by disfigurement necessarily varies so much with the character, temperament and circumstances of the injured person that no just measure of damages from it can be found applies equally well to physical pain, though perhaps in a less degree. And damages are always allowable for physical suffering. Mental suffering is no more intangible and indefinite than physical suffering is. The damages from suffering, either mental or physical, cannot be weighed; it cannot be measured; it cannot be computed. It can only be estimated. The difficulty in making the estimate affords no good reason for failure to make it. The estimation must depend on the good sense, sound judgment and enlightened conscience of the jury, under all the facts and circumstances of the particular case, and the sensibilities of the particular person.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Bulletin of the Johns Hopkins Hospital, Baltimore

June

1 *Carbohydrate Tolerance and Posterior Lobe of Hypophysis. E. Goetsch, H. Cushing and C. Jacobson, Baltimore.
2 *Distortions of the Visual Fields in Brain Tumor. H. Cushing and G. J. Heuer, Baltimore.

1. Carbohydrate Tolerance and Posterior Lobe of Hypophysis.—Their experimental studies have convinced the authors that the secretory product of the posterior lobe (pars nervosa et intermedia) is discharged into the cavity of the third ventricle and becomes dissolved in the cerebrospinal fluid, a medium which passes from the ventricles to the subarachnoid spaces and thence, in all probability, enters the blood-stream by way of the dural sinuses. Under various forms of operative manipulation of the infundibulum and hypophyseal stalk-structures which appear to hold the reserve deposit of posterior lobe secretion, a transient hyperglycemia is produced, presumably due to the setting free of an excess of this secretion, which in turn causes the discharge of stored glycogen. For the succeeding few days the assimilation limit for ingested carbohydrates is considerably diminished, "alimentary glycosuria" being produced by a smaller amount of sugar than was previously required. If the operation has been so conducted as to create a subsequent and permanent insufficiency of posterior lobe secretion (either owing to the removal of a considerable portion of this lobe with its epithelial investment, or thorough interference with its secretory discharge either by the placement of a "clip" on the stalk, or by so damaging it that an infundibular cicatrix forms) the temporary lowering of the assimilation limit is succeeded by an abnormal and enduring augmentation in the tolerance for sugars. The assimilation limit for carbohydrates, greatly increased under these circumstances, can be promptly lowered by the coincident intravenous or subcutaneous injection of posterior lobe extract. This extract, furthermore, has a pronounced effect in lowering the sugar tolerance of the normal animal in whom it may even cause glycosuria when given in sufficient dosage.

They believe also, contrary to the opinion advanced by Crowe, Cushing and Homans, that the tendency toward adiposity displayed by partially hypophysectomized animals is not due solely to a deficiency of anterior lobe secretion. In view of the fact that the products of the posterior lobe secretion enter the cerebrospinal fluid, it is apparent that any intracranial lesion occasioning stasis of this fluid will lead to symptoms of posterior lobe insufficiency. An internal hydrocephalus, therefore, of whatever origin, is doubtless the most common source of moderate grades of this condition. Tumors which arise in the interpeduncular space and directly compress and deform the infundibular attachment and thus "block" the secretion furnish another not infrequent source of the same symptoms. A third form of posterior lobe deficiency occurs as a late manifestation of a preexisting hypophyseal hyperplasia, much as, in the case of the thyroid, evidences of myxedema, in the course of time, are likely to supervene on states of hyperthyroidism.

2. Distortions of Visual Fields in Brain Tumor.—In a series of 200 cases of brain tumor, Cushing and Heuer secured reliable perimetric charts in 123 cases. These have shown (1) normal fields in twenty-seven cases; (2) simple color interlacing or inversion (dyschromatopsia) with more or less constriction, but without other field distortion in fifty-three cases; and (3) hemianopsia, or a tendency toward this defect, in forty-two cases.

Virginia Medical Semi-Monthly, Richmond

May 26

3 Incipient Insanity. W. F. Drewry, Petersburg.
4 Neuritis. M. W. Peyser, Richmond.
5 The Ureteral Catheter. R. C. Bryan, Richmond.
6 Lesions of the Sacro-iliac Synchondrosis. J. Dunlop, Washington, D. C.

St. Louis Medical Review

May

7 Pubiotomy. A. Samuels, Baltimore.
8 The Hospital School for Backward Children. E. B. McCready, Pittsburg, Pa.
9 Treatment of Hydrocele. C. G. Cumston, Boston.

Journal of the Minnesota State Medical Association and the Northwestern Lancet, Minneapolis

June

10 Minnesota State Medical Association. H. H. Healy, Grand Forks, N. D.
11 *Mixed Tumors of the Parotid. E. S. Judd, Rochester.

11. Mixed Tumors of Parotid.—In twenty-two of the forty-one cases reported by Judd the tumors were in the right parotid. Twenty-five of the patients were females. The majority of these tumors occurred in the second decade. The youngest patient in the series was 15 years of age and the oldest 71 years of age. The average length of time in which the patient had the trouble before operation was eight years. One case appeared to be of one month's duration. In nine of these cases the endothelial element predominated, five were sarcomatous, three were mixed-cell tumors undergoing sarcomatous change, and three were mixed tumors undergoing endotheliomatous change. Ten of these patients came with recurring growths, or they had recurrences following operations. Twenty-seven of the forty-one patients have recently been heard from: twenty-four of them state that they are perfectly well, and three of them say they have a local recurrence. Two of the three had predominating sarcomatous elements at the time of operation; one, a man 70 years of age, had had a tumor for thirty years with a history of rapid growth during the last three months. This patient died, evidently of metastasis.

Judd claims that the endeavor to preserve all of the fibers of the seventh nerve may be said to be the cause of most of the recurrences following the removal of mixed tumors of the parotid. If we could deliberately excise the tumor with as much of the parotid as we deemed wise, there would be no recurrences in the early cases, but as long as these tumors are not severely malignant in the beginning it is a question whether we are justified in sacrificing the facial nerve. In the encapsulated cases it has been Judd's custom to excise completely the tumor with the capsule, and to pack the entire wound with gauze saturated with Harrington's solution, in order that the raw surfaces may be seared to prevent the grafting of any cells. It was not found necessary to remove any of the lymphatics if the growth was well encapsulated, and it was not observed that these tumors involve the lymphatics until very late in their development. On the other hand, if the disease is extending into the parotid and into the surrounding lymphatics, the parotid should be excised entirely, and with it the adjoining lymphatics. In a few of Judd's cases the tumor was very large, pressing into the mouth and throat, and causing considerable dysphagia and interference in swallowing. In these cases, in addition to the removal of the parotid, it was necessary to sacrifice the external artery and the internal jugular vein.

Kentucky Medical Journal, Bowling Green

June 1

12 Is the Doctor's Life Worth Living? R. B. Cassady, LaGrange.
13 A Few of the More Common Skin Diseases. J. L. Atkinson, Campbellsville.
14 The Scientific Significance of Dreams. C. Pope, Louisville.
15 The Border Land. M. Board, Louisville.
16 Meningeal and Cerebral Complications Involving the Silent Area of the Brain (Anterior Frontal Cerebral Lobes) as Result of Ethmoidal, Sphenoidal and Frontal Sinus Disease. J. A. Stucky, Lexington.
17 A Plea for Increased Efficiency and Greater Optimism in Postoperative Treatment. W. E. Senour, Bellevue.
18 Antiseptics in Typhoid. J. L. Quisenberry, Worthington.
19 Treatment of Typhoid. R. S. Plumlee, Glasgow.
20 Bronchitis. O. W. Brown, Lenoxburg.
21 Acute Osteomyelitis. J. A. Caldwell, Peach Grove.
22 Treatment of Tuberculosis. J. N. Bailey, Predonia.
23 Care and Supervision of Abnormal Presentations in Labor. W. F. Grubbs, Hazel.
24 Treatment of Post-Puerperal Eclampsia. G. W. Payne, Bardwell.
25 Gleanings from Twenty-Five Years' Experience in Obstetric Practice. G. G. Thornton, Lebanon.
26 Forceps Delivery. A. E. Threlkeld, Wheatley.
27 Bronchopneumonia. T. Center, Hazel Green.
28 Syphilis. H. R. Simmons, Corinth.
29 Salvarsan in Syphilis. C. C. Garr, Lexington.

Journal of Nervous and Mental Diseases, New York

June

30 Diagnostic Value of Dyschromatopsia in Nervous Diseases. C. D. Camp, Ann Arbor, Mich.
31 *Neurologic Serology. D. M. Kaplan, New York.
32 *Bromid Intolerance and Bromid Poisoning. L. Casamajor, New York.

31. **Neurologic Serology.**—Kaplan's observations have convinced him that affections of the brain and cord leave definite impressions on the cerebrospinal fluid. Therapy and the curative power of the organism have been a definite influence on the prevalence of the pathologic constituents in the cerebrospinal fluid. The absence of any findings in the fluid in patients not treated, strongly argues against the involvement of the cerebrospinal system. The differentiation between the acute infective meningeal involvements and the chronic degenerative forms can be decided by a study of the cerebrospinal fluid. A history of syphilis and a positive Wassermann reaction do not signify in the presence of nervous manifestations, that the brain or cord are involved by a luetic process in the face of a negative cerebrospinal fluid analysis. As a therapeutic guide, the gradual disappearance of previously existing pathologic ingredients is an important aid in gauging therapeutic progress. Therapy affects first, the globulin content, then the serum Wassermann, third, the cerebrospinal fluid Wassermann, and lastly, the pleocytosis. The appearance of the Fehling's reducing substance, and the diminution in the inflammatory violet-color reaction take place with the disappearance of the polynuclear cells, although the lymphocytes may still prevail.

32. **Bromid Intolerance and Bromid Poisoning.**—The moral to be drawn from Casamajor's paper is the old plea for conservatism in the use of bromin salts in all conditions. Their toxicity, especially in view of the delirious states they can occasion, is far too frequently overlooked. Casamajor says that no weak or anemic patient should receive even small doses of bromids without a full realization of the danger by the physician. In such individuals the use of the bromids as local sedatives is contra-indicated. Once having prescribed bromids to these patients the dangers may be obviated by a careful watching for the early signs of poisoning, especially the thick-tongued speech, bromic breath and mental dulness. As soon as one of these symptoms is observed the drug should be discontinued, and large doses of sodium chlorid given to replace the bromid by the normal chlorid, and this, with vigorous eliminative treatment, should prevent an entirely unnecessary drug intoxication.

American Medicine, New York

May

33 Height and Weight in Relation to Life Insurance. G. F. Little, New York.
34 Obliteration of Craving for Narcotics. C. A. Rosenwasser, New York.
35 Diagnosis of Chronic Appendicitis. S. Floersheim, New York.
36 Treatment of Diabetes Mellitus. W. C. Schoenijahn, Brooklyn.
37 Hemorrhoids in Children. M. L. Bodkin, Brooklyn.
38 Bismuth Paste in Hydatid Cyst of Liver. L. M. Alofsin, New York.
39 Vasomotor Conditions in Surgery. W. C. Abbott, Chicago.
40 Mastoiditis Without Apparent Involvement of the Middle Ear. C. E. Perkins, New York.
41 Auto-Intoxication and Chloroform Poisoning. J. M. Lynch, New York.

Journal of the Missouri State Medical Association, St. Louis

June

42 Roentgen Rays in Diagnosis of Tabetic Osteo-Arthropathies. R. D. Carman, St. Louis.
43 *Modern Medicine and Medical Education. G. Dock, St. Louis.
44 *Id. J. Howland, St. Louis.
45 Lanfranchi. F. J. Lutz, St. Louis.

43 and 44. **Modern Medicine and Medical Education.**—This is an address delivered before a business men's club and deals with many problems in medicine in which laymen are interested and on which they need enlightenment.

American Journal of Urology, New York

May

46 Calculus in Bladder and Its Management, with Special Consideration of Litholapaxy. F. Kreissl, Chicago.
47 Chronic Gonorrheal Prostatitis. R. B. Anderson, Brooklyn

Long Island Medical Journal, Brooklyn

May

48 *Central Origin of Diphtheritic Paralysis. A. Spingarn, Brooklyn.
49 Surgery of Peripheral Nerves. A. T. Bristow.
50 *Extensive Denudation of Pneumogastric Nerve. L. S. Pilcher, Brooklyn.

June

51 The German Hospital of Brooklyn. W. Browning, Brooklyn.
52 Metatarsalgia. W. Truslow, Brooklyn.
53 Torsion of Pregnant Uterus. R. S. Fowler, Brooklyn.

48. **Central Origin of Diphtheritic Paralysis.**—As a further contribution to the abundant evidence that has already been accumulated in support of the hypothesis that diphtheritic paralysis, in most instances, is the result of central lesions, Spingarn reports two cases presenting points of unusual interest. The history of the first case differs in few respects from that of other fatal cases of diphtheritic paralysis, in most of which the cause of death is attributed to heart failure resulting from myocarditis, or from a neuritis of the pneumogastric nerve. That myocarditis was not responsible for the fatal issue in this instance may be concluded from the sudden onset of the cardiac symptoms in connection with other manifestations of paralysis, particularly the close association of the embarrassment of the heart and the muscles of respiration. The important points in the chronology of this case are the occurrence of paralysis of the soft palate nineteen days after the onset of the diphtheria, transitory difficulty of breathing eight days later, apparently due to transitory paralysis of the diaphragm or intercostals, and then in three days the onset of grave disturbance of respiratory innervation, and of failure of the heart's action. The association of the two last, Spingarn regards as more than a mere coincidence, and points to the vagus as the common cause of the two conditions. Furthermore, he regards the pathologic changes in this nerve as secondary to more fundamental changes in the medulla oblongata, changes either toxic or inflammatory. The simultaneous onset of vomiting, dyspnea, tachycardia with cardiac arrhythmia, apparently completes the chain of circumstantial evidence incriminating the medulla as the primary seat of disorder.

This complex of symptoms bears a striking resemblance to that which occurs in bulbar paralysis, particularly to that form occurring in the course of acute anterior poliomyelitis, of which there have been so many recent examples. The presence of temperature and the retraction of the head furnish additional evidence of the existence of some irritative condition at the base of the brain. There were several points of striking interest in connection with the second case. The diagnosis was obviously one of diphtheritic paralysis; yet, when the patient presented himself at the clinic there were being treated at the time a number of cases of poliomyelitis, which was then epidemic. Moreover, a surprisingly large proportion of the cases were of the encephalitic and bulbar or pontine types of poliomyelitis, in the former of which cerebral symptoms existed alone or in association with spinal involvement, and in the latter of which facial, ocular and hypoglossal paralysis existed alone or with paralysis of the extremities. This case also suggested the ataxic form of poliomyelitis, symptoms of which closely simulate those of Friedreich's ataxia. The later developments in this case, with the tendency to progressive increase in the paralysis, particularly its tendency to ascend, and the final fatal outcome, apparently from involvement of the heart and respiratory centers, gave this case a still more striking resemblance to the ascending form of poliomyelitis, with symptoms like those of Landry's ascending paralysis, in which the respiratory centers are involved. The diagnosis of this case was based on the occurrence of diphtheria three weeks before the onset of the paralytic symptoms, the absence of recent acute febrile symptoms that mark the invasion of poliomyelitis, the characteristic fluctuating and scattered distribution of the paralyses, and finally, the occurrence of sudden death from cardiac and respiratory paralysis.

50. **Extensive Denudation of Pneumogastric Nerve.**—Pilcher calls attention to possibilities of disaster from the interference with the pneumogastric nerve in the course of operations for the removal of neck tumors, even though the continuity of the nerve itself is not compromised. A man, 69 years of age, who had been subjected to an excision of a portion of the left side of the tongue for what was considered a cancerous ulcer, had a recurrence sixteen months later with a deep-seated, ill-defined, hard mass occupying the left submaxillary region. The general condition of the patient was still good.

At operation all the deeper tissues of the neck were found involved in the mass of carcinoma. In the course of the dissection the sterno-cleido-mastoid, diagastric, stylohyoid and stylothyroid muscles were cut away, and the external artery and all its branches were extirpated. The entire internal jugular vein, already thrombosed where it was involved in the tumor, was removed. Sections of the hypoglossal and spinal accessory laryngeal nerves were cut out. The glossopharyngeal nerve was exposed and necessarily subjected to traction and pressure in the course of the removal of overlying tissue. It was possible to isolate and preserve the pneumogastric nerve, and the internal carotid artery. The sheath of the pneumogastric nerve was involved in the carcinomatous process, and was therefore cleanly dissected away from the trunk proper of the nerve, which did not seem to be involved. The great sympathetic plexus was also exposed in the bottom of the wound, but was not injured.

The patient, though somewhat shocked at the end of the operation, for several hours remained in satisfactory condition; at the end of five hours, however, without previous dyspnea or symptoms of respiratory embarrassment, he suddenly developed respiratory failure, from which no efforts at artificial respiration were sufficient to revive him. The apnea was definite and the patient died.

Searching for the cause of death, Pilcher directs attention to the following: The one peculiar element which first engages attention in this case is the condition of the trunk of the pneumogastric nerve, which for some 4 inches of its course had been deprived of its sheath. The conditions present were practically those of an abrasion of the nerve extending over the area described. The immediate result of this traumatism would be a certain degree of active congestion of the nerve capillaries and swelling of the trunk from infiltration of the interfibrillar spaces with serum. These results of traumatic reaction require some time for their complete development, but they would have arrived at a considerable degree of development by the end of four or five hours. It has seemed to Pilcher, therefore, as the most reasonable explanation of the occurrences in this particular case, that the condition of the pneumogastric, progressively developing traumatic congestion and infiltration over so considerable a portion of its extent, may have been an important source of the inhibiting influence which was exercised on the respiratory center, with which the pneumogastric is so intimately related.

Maryland Medical Journal, Baltimore

June

54 *Foreign Body Removed from Right Bronchus by Upper Bronchoscopy. New Method of Passing Bronchoscope. R. H. Johnston, Baltimore.
55 Salvarsan in Diseases of the Eye. H. Friedenwald, Baltimore.
56 *Review of Tonsil Question. H. E. Peterman.

54. **Foreign Body from Right Bronchus.**—Johnston refers briefly to a new method of passing the bronchoscope, which has made bronchoscopy much easier for him. The difficult stage of bronchoscopy is in passing the tube between the vocal cords into the trachea. The vocal cords once passed, it requires no special skill to push the tube further down. Johnston conceived the idea of placing the patient's head straight on the table and passing the old Jackson laryngoscope down between the incisor teeth. The epiglottis was pulled up and a clear view of the larynx obtained. In his earlier work, he placed a pillow under the head to secure flexion. Further observation has convinced him that flexion is not necessary; a straight position of the head, held firmly by an assistant, makes direct laryngoscopy easy. After working with the straight method of laryngoscopy for some time, it occurred to Johnston that it might be feasible to pass the bronchoscope in this position, thus eliminating the strain on the wrist and the force required to overcome the tense muscles in the extended position. It has worked admirably and has proved easy. The method of procedure is as follows: The patient is placed on the table with the head in the normal straight position. A general anesthetic is administered. The modified direct laryngoscope is passed straight down between the incisor teeth, and when the epiglottis comes into view the spatula end of the instrument is hooked behind it. By making slight pressure on the upper teeth the epiglottis and base of the tongue are pulled up and the larynx opened for inspection. A weak solution of cocain is now applied to the larynx through the tube to prevent reflexes. With the laryngoscope in position, the bronchoscope is passed through it to the vocal cords. With the eye fixed on the end of the smaller tube, a slight twisting motion is used, which sends the bronchoscope between the cords. The breathing is now distinctly tubal in character. The laryngoscope is removed and the head of the patient gently lowered over the end of the table. The examination is now proceeded with as in the extended position. In the above procedure the operator stands to the left of the patient and uses the laryngoscope in the left hand. Both direct laryngoscopy and bronchoscopy are easier because the muscles are relaxed.

56. Abstracted in THE JOURNAL, May 20, 1911, p. 1502.

The Laryngoscope, St. Louis

May

57 Practical Value of Lip-Reading. M. A. Goldstein, St. Louis.
58 Acute and Chronic Inflammation of Maxillary Sinus. Recognition and Treatment. T. C. Worthington, Baltimore.
59 Chronic Purulent Maxillary Sinusitis of Dental Origin. C. J. Koenig, Paris, France.
60 Postoperative Double Frontal Sinusitis. Extensive Osteoma of Frontal and Nasal Bones and Orbital Fossæ, with Superimposed Lipoma—Causal Factor, Frambesia (Yaws). C. D. Van Wagenen, New York.
61 Myxo-Fibro-Sarcoma of Nose and Nasopharynx, Removed by Bodine's Modification of the Boeckel Operation. D. S. Dougherty, New York.
62 Exostosis of the Septum. M. Metzenbaum, Cleveland.
63 Yankauer Operation in Chronic Middle-Ear Suppuration. H. Hays, New York.
64 Analysis of Weber Test in One Hundred Cases. R. Sonnenschein, Chicago.

Journal of the Medical Society of New Jersey, Orange

June

65 Serum Treatment of Epidemic Cerebrospinal Meningitis. F. S. Hammond, Trenton.
66 *New Treatment for Fractured Patella. C. H. Finke, Jersey City.
67 Relations of Vaccine Therapy to Infections and to Serum Treatment. G. H. Dexter and J. D. Smith, Brooklyn.
68 Glimpses of Medical History. S. E. Robertson, Newark.
69 Coffee. H. Chavanne, Salem.

66. **New Treatment for Fractured Patella.**—When using Finke's method no attempt should be made to reduce the fragments until nearly all the fluid is removed from the knee-joint. Reduction is accomplished by immobilization of the knee-joint, by fixation of the lower fragment and by traction on and fixation of the upper fragment. The leg should be extended completely and the knee immobilized on a posterior splint. Two strips of adhesive plaster, 2 inches wide, are then applied to the outer and inner part of the thigh extending downward from its upper third to about parallel with the upper border of the patella; here they leave the thigh still running downward for about 2 inches; this extension is inverted and turned into loops, these loops hanging free from the limb on both sides. These longitudinal strips are reenforced by the thigh being strapped transversely with adhesive plaster, from its upper third down to the upper margin of the upper fragment of the patella, against which it fits snugly. The posterior splint, which is properly padded, extends downward from the gluteal fold to within a few inches of the os calcis. The lower fragment of the patella is then fixed temporarily by a gauze bandage applied against its lower border. The lower limb having been covered with a white stocking, a plaster-of-Paris bandage is applied so as to set snugly against the lower border of the lower fragment, fixing it permanently and extending downward, covering both limb and splint. The thigh is then covered with gauze; over this the plaster-of-Paris bandage is then applied, which covers both thigh and splint down to the upper margin of the upper fragment of the patella.

Care should be taken when applying upper and lower sections of plaster at the patella, that the upper section is carried down lower and the lower section is carried up higher posteriorly. This causes the plaster bandages to lap at right angles posteriorly, which gives them greater leverage, and by thickening the edges at the patella, forms a fenestra or window where frequent observations and auxiliary approximation of fragments by gauze packing can be made. Attached to the loops of adhesive plaster on each side of the knee is a

half-inch rubber tubing, which, somewhat taut, extends downward to the foot, passing under the arch, unites with its fellow from the opposite side. This acts like a Bucks extension, pulling down the quadriceps and keeping the fragments in apposition, the upper plaster cast acting like a cuff. The object of the rubber tubing is to regulate strength of extension, thereby obviating the necessity for rest in bed with extension by weight and pulley. To keep the fragments from tilting upward, a pad is placed over the fractured patella and a roller bandage is applied. The patient is then given a pair of crutches and allowed to go about. At the expiration of eight or ten weeks, passive or active motion at the knee-joint may cautiously be allowed. The great advantage of the foregoing method is due to the posterior splint which keeps the limb fully extended, the lower plaster-of-Paris bandage fixes the lower fragment; the rubber tubing, which is attached to the loops of adhesive plaster from above, acting like a Buck's extension, pulling down the quadriceps, the fenestra or window, where frequent observations can be made; and last, and above all, the patient is allowed to get up and go about on crutches during his convalescence, and is not confined to his bed for eight or ten weeks.

Ophthalmic Record, Chicago

May

70 Treatment of Phlyctenular Conjunctivitis. J. R. Hicks, New Brighton, N. Y.
71 Leech Bite of the Cornea. E. B. Coburn, New York.
72 Trachoma Bodies from Non-Trachomatous Eyes. H. McKee, Montreal.
73 Electric Injuries of the Eye. A. C. Sautter, Philadelphia.
74 A Case of the Stinger of a Bee Embedded in the Upper Eyelid for Three Months. O. Orendorff, Canon City, Colo.
75 Necessity for Extra Care in the Prognosis and Treatment of Diabetic Cataract. H. Gifford, Omaha, Neb.
76 A Case of Bilateral Choked Disc Produced by a Cyst at the Cerebello-Pontile Angle. A. Murray, Chicago.

Mississippi Medical Monthly, Vicksburg

June

77 *Intestinal Parasites of North Mississippi. L. Kohlheim, Guntown.
78 *Blennorrhea; Syphilitic Keratitis. I. W. Cooper, Newton.
79 *A Forgotten Use of Calomel. S. Myers, Vicksburg.
80 *Oysters and Typhoid. H. S. Capps, Gulfport.

77, 78 and 79. Abstracted in THE JOURNAL, May 20, 1911, p. 1503.

80. **Oysters and Typhoid.**—The examination of three samples of oysters by Capps proved that each set of oysters contained the colon bacilli, the normal bacteria of the intestinal tract of men and many animals. The presence of typhoid bacilli was not demonstrated, although many tests were made for this purpose. Capps concludes that oysters taken from deep water, or from a considerable distance from shore or any infected point, are reasonably safe, provided they are handled carefully and are fresh. On the other hand, those taken from shallow water near sewers or other infected points are probably contaminated and are unfit for human food, and their use should be prohibited by law.

Buffalo Medical Journal

June

81 Surgical Treatment of Exophthalmic Goiter. M. B. Tinker, Ithaca, N. Y.
82 Differential Diagnosis of Intra-Uterine Pregnancy Based on Clinical Observations. L. Schroeter, Buffalo, N. Y.

American Journal of Surgery, Philadelphia

June

83 *Surgical Treatment of Cleft Palate. J. H. Jacobson, Toledo, Ohio.
84 *Panhysterocolpectomy. A. E. Gallant, New York.
85 Finger Infections. J. H. Long, Brooklyn.
86 Primary Suture in Simple Mastoidectomy. H. Hays, New York.
87 *Transplantation of Epithelioma. R. T. Morris, New York.
88 *Dilatation of Stomach. E. Lanphear, St. Louis.
89 Postoperative Dilatation of Stomach in Children. W. A. Sherwood, Brooklyn.
90 Congenital Hypomastia with Acquired Hypertrophy of the Opposite Breast. H. Neuhof, New York.
91 Inguinal Hernia in a Child Six Weeks Old, Containing Tube, Ovary and Horn of Uterus. A. S. Morrow, New York.
92 *Extraction of Foreign Bodies from the Eye by Corneal Curet. J. M. Wheeler, New York.

83. **Surgical Treatment of Cleft Palate.**—Jacobson again emphasizes the importance of the early operation; the fact that a higher percentage of successful closures is obtainable by the Lane methods than by any other; the advisability of a careful preliminary preparation of the patient, and the great importance of postoperative training in articulation and phonation.

84. **Panhysterocolpectomy.**—The indications for colpectomy, according to Gallant, are: In a woman suffering from cystocele, with or without prolapse of the uterus or rectum, either before or after hysterectomy, especially when other operations have failed to secure a permanent cure, provided she has passed the child-bearing period or is otherwise debarred from child-bearing, if her husband is willing to forego sexual relations, or if she is usually "frigid," the Edebohls-Martin operation, viz., complete excision of the vaginal mucous membrane, with the uterus, if present, and columnization of the vaginal tube, is a safe and sane operation which will ensure an absolute and permanent cure of the prolapsus at a minimum of danger and loss of time, with a maximum of security against recurrence. Practically the only contra-indications are the child-bearing, and in married women, at least, the loss of sexual relations.

87. **Transplantation of Epithelioma.**—This case presents two points of special interest. Fifteen years ago, a woman 44 years of age was sent to Morris with tuberculosis of the peritoneum, and was operated on. The peritoneum was thickly studded with masses of miliary tubercles, and a small amount of free fluid was present. She made a complete recovery from the peritoneal tuberculosis. Last year she returned with a watery sanguineous discharge from the vagina, and erosion of the cervix uteri, a segment of which, removed for examination, showed epithelioma. The cervix was curetted, but not cauterized, and a panhysterectomy was done by way of the abdominal route, in order that at the same time a weak point in the abdominal wall at the site of the old drain opening might be repaired. It is probable that the cervix touched the abdomen while being removed, for five months later the patient developed a mass at the lower angle of the wound. Morris removed the mass, and on microscopic examination it proved to be epithelioma. Here is, he says, a definite case showing the need of cauterization of the cervix, as well as curetting, in order to avoid such accidents of direct transplantation.

88. **Dilatation of Stomach.**—This case is unusual in the following points: 1. A remarkable degree of chronic dilatation of the stomach due to an ulcer of the duodenum. 2. Complete separation of an 8-inch incision on the thirteenth day after operation. 3. Recovery after the stomach and a loop of intestine had lain eight hours outside the abdominal cavity.

92. For a description of Wheeler's instrument for removing foreign bodies from the cornea, see Wheeler: A Corneal Curette; THE JOURNAL, March 22, 1909, p. 1066.

West Virginia Medical Journal, Wheeling

June

93 Treatment of Recently Insane. J. R. Bloss, Huntington.
94 Physician's Responsibilities in Relation to Defective Classes. G. H. Benton, Chester.
95 Tuberculosis Among the Nez Perces Indians of Idaho. J. N. Alley, Fort Lapwai, Idaho.
96 Surgical Treatment of Hypertrophied Prostate. J. E. Cannady, Charleston.
97 The Nobility of Medicine. M. M. Hoff, Philippi.
98 Herpes Zoster Ophthalmicus Causing Bilateral Ptosis. C. F. Mahood, Alderson.

California State Journal of Medicine, San Francisco

June

99 *A New Sign (Pastia) in Scarlet Fever. G. H. Taubles, San Francisco.
100 The Cell in Modern Medicine. H. Tyler, Redlands.
101 *Intestinal Hemorrhage in Hernia. R. Brown, Santa Barbara.
102 Skin as Influenced by the Thyroid. H. E. Alderson, San Francisco.
103 Diagnosis and Surgical Treatment of Tuberculosis of Kidney. E. C. Moore, Los Angeles.
104 Relation Between the Tonsils and Tubercle Bacilli. C. C. Warden, Los Angeles.

99. **A New Sign in Scarlet Fever.**—Taubles examined a number of cases of various infectious diseases with a view to confirming Pastia's observation. The sign referred to by Pastia was described as consisting in an intense continuous, linear

pigmentation of the skin folds across the anterior surface of the elbow, varying in color from rose red to dregs of wine, and even appearing ecchymotic. These lines vary in number from one to four, and the eruption on the skin lying between them, when they are multiple, resembles that on the rest of the skin. The time of appearance of this sign is simultaneous with the appearance of the rash. It persists not only during the eruptive period, but for a varying time afterward, even until desquamation is complete. Its occurrence in the skin folds of the axilla has been observed, but is neither so constant nor as permanent in this region as in the arm.

Taubles' cases seem to confirm that this reddening of the skin folds is not present during, or due to, a mere elevation of temperature of shorter or longer duration. In eighteen cases of scarlet fever seen almost daily from the onset until completion of the desquamation, every one showed the sign. Of these cases, four presented, instead of the typical rash, a mottled blush over the chest and rendered the immediate diagnosis, aside from the sign, uncertain until the typical rash appeared. In the majority of cases (thirteen) the sign lasted for from one week to three weeks after the rash had disappeared. Three showed it in the elbows only. In the others it was visible in other flexures. In scarlet fever Taubles has not seen the sign as darkly red as Pastia describes it, a claret color being the darkest. In the measles cases it was very dark, however. In most of the cases which were seen on the first day of eruption (five), the sign was not as deep in color as on the succeeding day when the eruption had become more pronounced in color. No cases of the series were seen before the eruption took place. In addition to the elbow folds, the skin of the folds of the groin, nates, popliteal space, axilla, wrists and base of the neck were observed. While the sign was recognized in these situations in many of the cases, it was not so pronounced nor so constant as in the elbow, and always disappeared sooner than the elbow sign. Taubles is convinced that the sign really exists as a part of the picture of scarlet fever, both during and, in the majority of cases, after the eruption has manifested itself.

101. **Intestinal Hemorrhage in Hernia.**—Hemorrhage from the stomach or rectum in a patient who has had a hernia for some considerable period of time with a history of several attacks of pain in the hernial tumefaction, no matter how slight, Brown says, justifies the consideration of the hernia and its environs as of major importance in a differential analysis as to the source of the blood. During operation, if the conditions within the sac do not satisfy as to the origin of bleeding, and the adjacent intestines cannot readily be inspected through the hernia incision, an immediate exploration celiotomy is indicated.

Journal of Oklahoma State Medical Association, Muskogee

June

105 Medical Organization and Medical Legislation. D. A. Myers, Lawton.
106 Conservation of Child Life as Economic Factor to State. W. G. Little, Okmulgee.
107 Progress of Medicine. J. H. Scott, Shawnee.
108 Necessary Points for a Progressive Physician. B. W. Freer, Nowata.
109 Laryngeal Tuberculosis. M. K. Thompson, Muskogee.
110 Pellagra. F. B. Ervin, Norman.

Western Medical Review, Omaha, Neb.

June

111 The Future of Medicine. H. P. Lord, Omaha, Neb.
112 Prevalent Professional Psychasthenia in Relation to Psychotherapy. H. S. Munroe, Omaha, Neb.

Medical Record, New York

June 17

113 New Operating Pavilion for Thoracic Surgery at German Hospital, New York. W. Meyer, New York.
114 Rational Treatment of Laryngeal Tuberculosis. S. Von Ruck, Asheville, N. C.
115 *Reflex Contraction of Muscles Associated with Pulmonary Disease. E. F. Cyriax, London, England.
116 Incontinence of Urine in Women. H. C. Taylor, New York.
117 Criminal Abortion. W. B. Jenninga, New York.
118 *Pronounced Case of Splenomyelogenous Leukemia with Autopsy. M. Solomon, Washington, D. C.
119 Etiology of Epidemic Poliomyelitis and Its Possible Relation to Beriberi. O. V. Huffman, Cincinnati.
120 *Trachoma in Cuba. F. M. Fernandez, Havana, Cuba.

June 24

121 *Vaccine Treatment of Typhoid. J. G. Gallison, New York.
122 *Some Observations on Organization of Hospital Staffs. J. A. Blake, New York.
123 *Organization of University Hospital Medical Staff. W. G. Thompson, New York.
124 Case of Addison's Disease. L. Weber, New York.
125 Pennsylvania's Work in Rural Sanitation. H. B. Bashore, West Fairview, Pa.

115. **Reflex Contraction of Muscles and Pulmonary Disease.**—Priority over Pottenger is claimed by Cyriax on the subject of spasm of the chest muscles, particularly on spasm of the intercostals, as a physical sign of disease of the lungs. Pottenger stated in 1909 that so far as he was aware this symptom, except as occurring in pleurisy, had not been hitherto described. In 1903 it was briefly described by Cyriax in a volume entitled "The Elements of Kellgren's Manual Treatment." This work expounded the Ling system of medical gymnastics, with special reference to the modifications and improvements introduced by H. Kellgren.

118. **Splenomyelogenous Leukemia with Autopsy.**—Solomon cites a case of splenomyelogenous leukemia in a man, aged 30, who became insane after a life of steady alcoholism, in whom the blood examination showed the presence of leukemia. The disease came on after the patient had entered the Army and had been sent to the Philippines, where he had severe malaria. The patient while at the Government Hospital for the Insane had delusions and hallucinations. He did not know his own relatives and accused himself and others of serious crimes. He had internal and external hemorrhages of small size, a peculiar pallor, enlarged lymphatic glands, and marked blood changes. Hemoglobin was 30 per cent., the white cells were much increased and there were many myelocytes of all kinds in the blood. The cerebrospinal fluid showed lymphocytes, large mononuclears, polymorphonuclears and macrophages.

120. **Trachoma in Cuba.**—The method employed by Fernandez in the treatment of trachoma is as follows: With a cotton swab immersed in a 10 per cent. cocain solution, the conjunctiva of both lids is bathed to produce anesthesia. One minute later another cotton swab, well soaked with distilled water, is impregnated with powdered sodium salicylate and rubbed with some strength against the granulations in front and behind the cul-de-sac. The lids are, of course, very well averted. In some cases the drug causes some burning; in others this is intense, but in all cases the burning sensation disappears in a short time. For two or three days it can be seen how the conjunctiva becomes more and more smooth, the granulations disappear by reabsorption and by destruction; friction used destroys many and increases a limited inflammation provoked by the salicylate. The treatment is repeated every three or four days, and more than half of the cases received five or six applications. Of nearly 400 cases in which this treatment was employed, Fernandez has failed in less than ten cases.

121. **Vaccine Treatment of Typhoid.**—Callison has treated with vaccines all of his typhoid patients. Beginning with the small dose of 25,000,000 he has increased this to 500,000,000 at intervals of two to three days. In prophylactic vaccination three injections are given each at an interval of ten days. Antibodies begin to develop on the fifth to the tenth day; they are bacteriolysins, opsonins and agglutinins. There is an incubation period between the injection and the beginning of formation of antibodies, and then the amount of these bodies rises for twenty to twenty-five days, after which it gradually falls during a period of one year. In an attack of typhoid there is a rise of temperature for eight or ten days until the bacillus may be demonstrated in the blood. Then there is a period of even high temperature and the Widal reaction becomes evident in smaller dilutions, followed by a gradual decline. This is to be compared to the similar rise of antibodies in vaccination. Recovery from typhoid and the development of immunity are brought about by a similar mechanism. Thus one should expect little effect from the vaccines in the first eight or ten days; then the antibodies natural to the disease and those artificially developed combine to cause improvement of the symptoms. The author gives an account of the systematic treatment of typhoid by vaccines as reported by various authors, and reports twenty-three of his cases.

Three of these are excluded because not treated in the proper stage of the disease. Among the twenty remaining cases there were three deaths and one relapse. There were three failures, all of them becoming septic in their temperature curve. The deaths were from rare complications; femoral phlebitis, lobar pneumonia and meningococcus septicemia. There were hemorrhages in three cases. Other complications were rare. The patients seemed better, showed a better appearance and were more comfortable, having better appetite and sleep. In 214 collected cases the mortality was 5.6 per cent.; relapses occurred in 5.1 per cent. The vaccine does not seem to have done harm. The inoculations were subcutaneous. Almost universally where used the treatment is considered to have done good. It lessens complications and relapses.

122. **Organization of Hospital Staffs.**—A true university hospital, Blake holds, should contain branches for all sorts of services and laboratories. It should be managed by a board of men versed in the business affairs of a hospital, who should administer it prudently and with economy. Electioneering for officers should be replaced by nominations by the university. The hospital staff should include physicians and surgeons attending the patients, and men engaged in the scientific work of the laboratory. Each laboratory department must be an individual, and yet be correlated with every other and with the clinical and teaching departments. Each clinical division should be a complete unit, and do all its own diagnostic and laboratory work, giving only the more complicated examinations to the special laboratory division. There should be cross-representation between and among all of them. A surgical division would include ward and operating room, laboratory for surgical pathology, and laboratory for experimental surgery. The main bond between the surgical and laboratory divisions is the laboratory of surgical pathology. The different members and divisions of the hospital staff are carefully described.

123. **Organization of University Hospital Medical Staff.**—Thompson gives an interesting description of the present assignments of the Cornell staff in its work at Bellevue Hospital. The essential features are continuity of service throughout the year; the utilization of student clerks for the benefit of the service; the coordination of the university laboratories with clinical work. There are ninety beds in the service, and 110 others are supervised by the university in connection with this work. A special nurse is employed by the university to assist the student clerks, so that the hospital work is not interfered with by their presence. The student clerks do not idle, because they are supervised by the staff. There is an opportunity to develop close alliance with the university laboratories, which do all the complicated work of examination needed in connection with the hospital wards. This organization follows the method in use for years in the German universities, and is of great value in the instruction of students.

Journal of the Indiana State Medical Association, Fort Wayne

June

126 Rabies. H. R. McKinstray and H. S. Thurston, Indianapolis.
127 Pathology, Symptoms and Treatment of Burns. G. W. Anglin, Warsaw.
128 Diphtheria Antitoxin; Action and Dosage. E. B. Mumford, Indianapolis.
129 Foreign Body in Orbit Discovered by Magnet After Failure by Roentgen Ray. F. A. Morrison, Indianapolis.

Boston Medical and Surgical Journal

June 22

130 *Results of Treatment of Two Thousand Cases of Miscarriage at Boston City Hospital. J. T. Williams and E. B. Young, Boston.
131 *Relation Between Laboratory Work and Clinical Work. R. C. Cabot, Boston.
132 Resumé of the History of Cesarean Section. E. T. Gray, Boston.
133 Indications for Cesarean Section. M. F. Hobart, Boston.
134 Technic of Cesarean Section. M. A. Smith, Boston.
135 Immediate Results of Cesarean Section. J. T. Williams, Boston.
136 End Results of Cesarean Section. N. R. Mason, Boston.
137 *Further Experience with Benzidin Test for Occult Blood in Diseases of the Digestive Organs. F. W. White, Boston.

130. **Treatment in Two Thousand Cases of Miscarriage at Boston City Hospital.**—In over half the cases (1,333) studied by Young and Williams, the miscarriage was incomplete; in only 199 cases was it complete; infected at the beginning in 111; infected afterward, 135. Excluding the cases in which infection determined the necessity for interference, there are 1,683 cases in which the ability of the uterus to empty itself spontaneously could be studied. The authors found that about 13.2 per cent. of all miscarriages may be expected to complete themselves spontaneously; the likelihood of a miscarriage to be completed without interference increases in direct proportion to the duration of pregnancy. When it becomes necessary to use artificial means to complete the miscarriage, the finger followed by the curet in later miscarriages, and of the curet alone in the earlier months of pregnancy, has given uniformly satisfactory results at the Boston City Hospital. Experience has shown that where the cervix is extremely rigid it is better to introduce the curet and break up the fetus and placenta and remove them piecemeal than to attempt to dilate the cervix sufficiently to introduce the finger. Packing the vagina and lower segment of the uterus is an unsatisfactory and often unsuccessful method of emptying the uterus. No success whatever was obtained in treating incomplete miscarriages in this way. Packing is, however, of great value in two classes of cases. First, in exsanguinated patients, to stop the hemorrhage and give the woman a chance to recover somewhat from the loss of blood before emptying the uterus. Second, when the cervix is very rigid, a tight cervical pack for twenty-four hours will soften it so that dilatation may be attempted with safety. The results of artificial methods are as good, but not better than where Nature has succeeded in emptying the uterus. Artificial methods are necessary in a majority of cases, however, simply because Nature has failed. In infected cases the essential thing is to get rid of the infectious material by emptying the uterus, the particular method employed making little difference. The later in pregnancy miscarriage occurs the smaller the liability to become infected, but the greater the likelihood of developing grave septic complications if infection does take place. The mortality is practically the same at all periods of pregnancy. Induced abortions have a greater mortality than accidental. The mortality of patients admitted to the hospital after criminal abortions was 10 per cent.

131. **Laboratory Work and Clinical Work.**—The essential difference between clinical work and laboratory work, Cabot says, is not in the technical methods employed, nor in the degree of their accuracy, nor in the methods of reasoning used. The essential difference consists in the predominance of psychical elements among the data used in the wards and in their elimination in the laboratory. The clinician cannot safely utilize at the bedside the results of laboratory tests which he knows only by reading. He should familiarize himself with these tests in the laboratory, in order to understand the sources of error and the limits of reliability. No laboratory worker should remain out of touch with the clinical aspects of the cases which furnish him his material. In the absence of any single dominating personality as an integrating factor in the hospital system, Cabot says the best available substitute seems to be combined ward visits in which the pathologist, surgeon, physician, chemist and physiologist work together for the increase of their practical and scientific fruitfulness. The evils of specialism may be thus in a measure neutralized and its benefits enjoyed.

137. **Benzidin Test for Occult Blood.**—Blood tests, White believes, are a very great help in clinical diagnosis, and it is his opinion that the Schlesinger and Holtz benzidin test is the best one to use, on account of its simplicity, clearness and degree of delicacy.

Southern Medical Journal, Nashville

June

138 Prevention and Cure of Disease. W. H. Blake, Sheffield, Ala.
139 Organization. H. A. Moody, Mobile, Ala.
140 *Treatment of Heart and Kidney Diseases. J. B. Guthrie, New Orleans.
141 Salvarsan in Syphilis. R. H. Von Exdorf and J. O. Rush, Mobile, Ala.
142 *End Results of Surgical Operations on Nervous Women. S. T. Rucker, Memphis, Tenn.
143 *Operating in Inguinal Hernia. J. Smyth, New Orleans.
144 Diseases Produced by the Bacillus Coli Communis in Intestines. F. B. Turck, Chicago.

145 Dermatitis Factitia. J. M. King, Nashville.
146 Operation of Turbinectomy and Method of Packing. G. E. Vaughan, Clarksville, Tenn.
147 Drinking Water with Meals. G. M. Niles, Atlanta, Ga.
148 Ethyl Chlorid Anesthesia in Eye, Ear, Nose and Throat Work. L. Levy, Nashville.

140, 142 and 143. Abstracted in THE JOURNAL, Dec. 3, 1910, pp. 2004, 2005 and 2006.

Colorado Medicine, Denver

June

149 Possible Explanation of Etiologic Relation Between Certain Intra-Abdominal and Pelvic Diseases. E. Hadley, Telluride.
150 Recent Experimental Work on Etiology of Malignant Growths. F. W. Bancroft, Denver.
151 Observations in Gall-Bladder Diseases. J. G. Hughes, Greeley.
152 Case of Carcinoma of Uterus Complicated by Pregnancy. O. M. Shere, Denver.
153 Etiology of Pelvic Inflammations. F. C. Buchtel, Denver.
154 Modus Operandi of the Acquisition of Gonorrhea by the Male and the Rationale of Its Prevention. W. M. Spitzer, Denver.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London

June 10

1 Preventive Medicine. Sir J. Barr.
2 *Importance of Pneumonia as a Cause of Death. F. M. Pope.
3 *Features of Aortic Regurgitation in Young Subjects. J. M. Clarke.
4 *Blood-Pressure in Mental Disorders. S. G. Longworth.
5 Interpretation and Significance of Some Irregularities of the Pulse. W. E. Hume.

2. **Pneumonia as a Cause of Death.**—It is pointed out by Pope that pneumonia, far from diminishing in frequency, has now obtained the bad preeminence of actually causing in England more deaths in a year than any other disease (irregular groupings by the registrar-general excepted) and also of having caused in 1907 more than double the deaths it did in 1881. If, he says, this disease had suddenly appeared among us we should have seen a kind of panic seize the public, and leagues would have been founded and large sums of money contributed to combat it; but because it is an old friend we see it calmly accepted as an inevitable concomitant, as well as a mode of termination of life.

3. **Features of Aortic Regurgitation in Young Subjects.**—Of 3,300 cases studied by Clarke, there were 96, or nearly 3 per cent., of cases of aortic valve disease; of these, thirty-three, or 1 per cent., were under 28 years of age. Cases in which there was any possibility of congenital heart disease were excluded. In the thirty-three in-patients under 28, acute rheumatism was the cause in twenty-one, chronic rheumatism in four, and chorea solely in four, a total of twenty-nine, or 87 per cent., in which there was a history or present evidence of some rheumatic manifestation. Two of the thirty-three cases were known to develop infective endocarditis. Of the four cases which owned chorea only as the cause, in two cases there had been eight, and in one, seven attacks. In twenty-seven out of the thirty-three patients other murmurs were present, although as regards signs and symptoms the active lesion predominated the case. In nine of the twenty-seven, the second murmur was an aortic systolic one, which of course does not by any means imply actual aortic stenosis, nor necessarily any serious complication; in the other eighteen there were mitral murmurs.

This difference from the adult is probably again connected with the etiologic factor of rheumatism. In five patients acute pericarditis was observed at some time, either preceding the appearance of the diastolic murmur, or both murmur and pericarditis were present on admission. In those cases in which aortic disease was complicated with mitral regurgitant murmurs, in at least four cases the aortic disease was certainly primary, and later on, as the heart enlarged, mitral regurgitation ensued. In another case a murmur, which was at first mid-diastolic and regarded as an aortic murmur conducted to the apex, became three years later a definite and characteristic presystolic crescendo murmur. In the majority of these cases of combined lesions both valves were affected, as evidenced by murmurs, at the time they first came under observation.

Clarke found that pain in the precordial region is the most frequent and prominent symptom in young subjects. Next in frequency to pain comes palpitation, or rather a violent throbbing of the heart and great vessels. Then comes dyspnea, either persistent on exertion or in the form of attacks in which the patient gasps for breath and has a most distressing sense of being unable to breathe. Attacks of syncope may occur, and in one case this was the cause of death. Certain forms of hemorrhage are not infrequent. Epistaxis is by far the most common. Hemoptysis and hematemesis also occurred; a purpuric rash was observed in another patient, with no evidence of malignant endocarditis. One patient with aortic disease (purely) of eight years' standing, of no great severity and without much enlargement of the heart, had a typical attack of embolism at the age of 20, resulting in right hemiplegia and aphasia. In another patient, aged 18, persistent insomnia and mental symptoms in the form of delusion were the prominent features. Edema, as in cases of heart disease generally in children as compared with adults, is conspicuously absent until the terminal stages of heart failure. In thirteen out of the thirty-three cases albuminuria was present. It did not occur with greater frequency in those patients who had a mitral as well as an aortic lesion. As a rule, the amount of albumin was small, and in eleven cases out of the thirteen it disappeared after a few days' rest in bed. Renal casts were either absent altogether or there were a very few hyaline ones. In the other two patients there was a considerable quantity of albumin, which persisted and was due to coincident renal disease.

Great enlargement of the heart itself is an even more marked feature of aortic disease in children than it is in adults. With this goes in a considerable number (36 per cent. of Clarke's cases) pronounced dilatation of the aorta, causing extension of dulness to each side of the sternum and upward, even as high as the sternal notch. The large vessels share to a less extent in the dilatation. With regard to the heart murmurs, the only point to which Clarke alludes in the aortic diastolic murmur of the young subject is that it is often very long, running almost up to the first sound, and to its loudness or harshness, and its variability. The murmur is more frequently heard at the apex than in adults (Flint's murmur); this was the case in 51.5 per cent. of the patients, and in 34 per cent. it was accompanied by a well-marked diastolic thrill. Not infrequently the murmur at the apex is mid-diastolic. Clarke believes that the dictum is correct that in cases in which Flint's murmur is present, in which there is a history of rheumatism, it is possible to exclude with certainty mitral stenosis. An analysis of these cases shows that in every instance in which the aortic incompetence was concomitant with enlargement (dilatation) of the right heart (from mitral disease) the aortic diastolic murmur was loudly and plainly conducted down and outside the right edge of the sternum; the conduction might be to the apex as well, but that to the sternum was very marked.

4. **Blood-Pressure in Mental Disorders.**—From Longworth's observation of a considerable number of cases it appears that maniacal and melancholic states are not associated with any constant modification of the arterial blood-pressure, or any marked departure in it from the normal. The same applies to other types of mental disorder, with the exception of congenital states in which the pressure tends to be low. The pressure bears some relation to the bodily tone, and increases as age advances; and as melancholia is on the whole a disorder of more advanced years than mania it is only associated with higher manometer readings on this account. Sedative drugs have a slight influence in lowering blood-pressure. The manometer readings bear a fairly close relation to the sclerosis of the vessel wall.

Lancet, London

June 10

6 Progress of Dermatology Since Hunter's Time. J. H. Sequeira.
7 *Rôle of Fat in Etiology and Progress of Cancer. G. T. Bentson.
8 Position of the Present Reform Movement in Anesthetics. F. W. Hewitt.

9 Explosives in Coal Mining and Their Effect on Miners. Sir T. Oliver.
10 *Ten Cases of Operation for Ménière's Disease (Aural Vertigo). R. Lake.
11 Twenty-Two Consecutive Cases of Extra-Uterine Pregnancy Successfully Treated by Operation. J. A. Kynoch.
12 *Prophylactic Inoculation Against Hay Fever. L. Noon.
13 Suppurative Arthritis of Knee-Joint, Due to Influenza Bacillus, Occurring in a Baby Aged Six Months. E. T. Fraser.
14 A Case of Acute Phthisis Following Typhoid. W. Scarisbrick.
15 Endemic Tetany in the Gilgit Valley. R. McCarrison.
16 Recognition of the Public Schools. Sir H. Morris.
17 An Investigation of Certain Substances Used in Coloring Foods. S. Rideal.

7. **Fat in Cancer.**—Beatson's attention has been chiefly directed in cancer to the fat of the human body, as circumstances have led him to think that possibly it is the tissue that plays an important part both in the etiology and certainly in the progress of the disease. Several reasons have weighed with him in adopting this view. For instance, he has frequently observed at post-mortem examinations the very pigmented condition of the fat in some cases of cancer, where it presented a reddish-yellow vermilion appearance, and evidently had in it a coloring matter not usually present in ordinary fat. Again, when operating in cases of mammary cancer, he has often been struck by the oily and fluid state of the circummammary fat. What, however, influenced him most in this matter were the results observed in those cases of oöphorectomy for inoperable mammary cancer in which there had been a complete disappearance of the outward manifestations of the disease after the operation, this disappearance of the signs of the disease being accompanied by improvement in general health, and an increase in the subcutaneous adipose tissue.

Working on this line of thought, it seemed to him that it would be of interest to examine chemically the fat of cancer patients and also of the body before and after puberty, so as to ascertain if any facts could be elicited that would in any way encourage research in this direction, for it seemed to him that if his explanation of the beneficial effects of oöphorectomy in mammary cancer was correct, there might be opened up a successful line of therapeutic action in the treatment of cancer generally. This inquiry was done for Beatson by Dr. W. H. Duncan. The results were as follows: 1. Twenty-two specimens of normal human fat between the ages of 26 and 38 years examined. The iodin values obtained ranged from 60.8 to 64, and the average for the twenty-two was 62.1. 2. In forty-three specimens of fat from patients between the ages of 39 and 68 years examined, the average iodin value obtained was 72.6214. 3. In twelve specimens of normal human fat examined from subjects between the ages of 52 and 65, the average iodin value was 63.981. 4. In three specimens of normal human fat after puberty examined, the iodin value was 61. 5. In five specimens of normal human fat in children under 11 years examined, the average iodin value approximated to 44. 6. In twelve specimens of normal human fat examined from children between the ages of 9 and 11 years, the average iodin value was 44.477. 7. In twelve specimens of normal human fat examined from subjects between the ages of 16 and 19 years, the average iodin value was 60.88. Speaking generally, the outcome of Dr. Duncan's observations is that a decided difference exists in human fat before and after puberty, the low percentage of 44.477 of non-saturated fatty acids between 9 and 11 years of age being replaced by the high one of 60.88 from 16 to 19 years of age. Further, that a similar increase takes place in the fat of cancer patients, the percentage rising from 62.1 in health to 76.62 in that disease. Beatson holds that the important rôle played by fat in many of the phenomena of life may be said to justify further inquiries and research.

10. **Operation for Ménières Disease.**—It is emphasized by Lake that in true Ménière's disease no treatment, operative or otherwise, can effect the least degree of improvement on the condition. In cases of aural vertigo, whether accompanied by tinnitus or not, the case is very different. In such cases Lake recommends vestibulotomy, consisting in opening the vestibule and destroying its contents. His results have been good. He says that in these cases relief may be promised with certainty. The slight risk of a temporary facial paralysis does not in reality require a passing thought; the hearing is the only important factor. Where the cochlear division of the eighth nerve is relatively intact, Lake says no operation should be considered, unless one is able to demonstrate without a shadow of a doubt that the vertigo is of purely aural origin.

12. **Inoculation Against Hay-Fever.**—The plan of experiment followed by Noon was to obtain a numerical measure of the sensitiveness of the patients to the pollen toxin and to observe whether this was increased or decreased by subcutaneous inoculations of various quantities of pollen toxin. It was found that, with well-regulated dosage, it was possible in every case to raise the patient's resistance to a marked degree, within the lapse of a few months, while, on the other hand, ill-regulated dosage was at once made evident by a decrease in the resisting power.

Journal of Tropical Medicine and Hygiene, London

June 1

18 Recurring Keratitis Caused by Trypanosomes. C. W. Daniels.
19 Tetanus. Severe Relapses Due to Development of "Latent or Dormant" Spores. L. G. Fink.
20 Pathogenicity of Bacillus Pyocyaneus in British Guiana. E. P. Minett and W. J. Duncan.
21 Trypanosomiasis in North-Eastern Rhodesia. A. Brown.

Clinical Journal, London

May 24

22 Medical Treatment of Ulcer of the Stomach. W. E. Wynter.
23 *A Study of the Life-Histories of Fifty Cases of Chronic Intestinal Stasis Treated by Short-Circuiting or Colectomy. H. Chapple.

May 31

24 Surgical Treatment of Certain Forms of Obstructive Jaundice. A. W. M. Robson.
25 Pruritus. G. Pernet.
26 A Study of Fifty Cases of Chronic Intestinal Stasis Treated by Short-Circuiting or Colectomy. H. Chapple.

23. Also published in the *British Medical Journal*, April 22, 1911.

Practitioner, London

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27 Mediastinal Growths. Sir R. D. Powell.
28 *Anomalous and Obscure Symptoms Associated with Movable Kidney. W. B. Clarke.
29 Plague in Northern China. W. J. Simpson.
30 Appendicitis. E. S. Bishop.
31 *A Review of Some Methods of Gastrostomy. E. M. Corner.
32 *Acute Pyelitis, Pyelonephritis, Suppurative Nephritis. J. W. T. Walker.
33 *Mode of Production of Apparent or Simulated Doubling of the Second Sound of the Heart. E. H. Colbeck.
34 Edema Occurring in the Course of Disease of the Gastro-Intestinal Tract in Infants. H. T. Ashby.
35 Guipsine as an Apressor Remedy in Cases of High Arterial Blood-Pressure. O. K. Williamson.
36 Modern Views of the Causation and Treatment of Mucous Colitis. F. Hernaman-Johnson.
37 Diagnosis of Scarlet Fever. A. K. Gordon.
38 Diagnosis and Treatment of Acute Suppuration in the Frontal, Maxillary and Anterior Ethmoidal Sinuses. J. A. Jones.
39 A Case of Retained Menses. I. Cowen.
40 Fluoroscopic Diagnosis of Direction of a Plane Mirror on the Screen. W. Cotton.

28. **Movable Kidney.**—Every one of the five cases related by Clarke is remarkable on account of the anomalous and puzzling symptoms which it presented. Vomiting is well known to be associated with what may be described as the gastric type of movable kidney. As a rule, however, it is exceedingly severe and is associated with other symptoms of movable kidney, so that it is readily ascribed to its true cause and an appropriate line of treatment is carried out. These cases are, however, one and all, remarkable from the fact that, though in some instances the vomiting was severe, no associated signs or symptoms were present to give aid in the diagnosis, and thus the true significance of the vomiting was for a long time unappreciated. If, however, one reviews carefully the condition of vomiting which existed in every one of these cases, it is clear that, with the exception of the single fact that the patients were quite well and in the enjoyment of their health between the attacks, there is little to distinguish this type of vomiting from that which is associated with many other ailments. Besides the fact that the patients were all in the enjoyment of their usual health between their attacks, Clarke says attention should be called to the circumstance that great intestinal distention was present in most of the attacks. In several of the cases when once the suspicion has

arisen that the kidney might be the prime cause of the mischief, an examination of the right kidney revealed the fact that it was more movable than it should be. In one case, in which jaundice formed a prominent feature, there was ample evidence of kidney trouble on various occasions during previous years, but the true relationship which existed between the jaundice and the kidney trouble was cleared up only by operation.

31. **Methods of Gastrostomy.**—Corner urges that the methods of gastrostomy described and based on the principles of Depage's operation offer a means of doing a gastrostomy with good results comparatively early in the course of esophageal obstruction while the patient is in good condition. By such means it will be possible to diminish the mortality and improve the results of the operation of gastrostomy in a marked manner. Corner has applied the principle of Depage's method to the formation of a cecostomy where for some reason or other the operation of appendicostomy could not be done or was a failure.

32. **Acute Pyelitis, Pyelonephritis and Suppurative Nephritis.**—Walker has performed nephrectomy in three cases for the late results of pyelonephritis, in which nephrotomy had been performed years before. The patients had survived the acute attack, although the operation did not protect them from chronic pyelonephritis. Two patients on whom he performed nephrotomy during the acute stage recovered. The best results have been obtained by nephrectomy in the acute stage. When and in what circumstance this should be performed, he says, cannot be laid down dogmatically, but it should be understood clearly that these patients are suffering from suppuration, which, in the great majority of cases, is confined to a single organ, and, if improvement does not take place within a reasonable time, to be measured by days, not weeks, the organ should be removed. To put off operation until the patient's life is in danger from chronic suppuration, because there is a doubt that the second kidney may be diseased, when such information could readily be obtained, is a reproach to surgery.

33. **Second Sound of the Heart.**—In Colbeck's opinion the second element of the double sound that is heard at the apex in cases of mitral obstruction is due to tension vibration of the large anterior flap of the mitral valve.

Dublin Journal of Medical Science

May

41 Cheyne-Stokes' Breathing. J. Little.
42 Tetany. C. W. C. Myles.
43 Diabetes and Pancreatic Secretion. R. A. Albertijn.

Journal of Obstetrics and Gynecology of the British Empire, London

May

44 Pathology of Tumors of the Corpus Uteri. R. F. C. Leith.

Annales de Gynécologie et d'Obstétrique, Paris

May, XXXVIII, No. 5, pp. 257-320

45 *Remote Functional and Obstetric Results of Pubiotomy. A. P. Ramos.
46 *Laparotomy for Irreducible Retroversion of Pregnant Uterus. Goullioud.
47 The Mechanism of Spontaneous Delivery. (Des différents mécanismes de l'évolution spontanée.) J. Rouvier.

45. **Remote Results of Pubiotomy.**—Ramos recently has been examining anew eighteen patients at Buenos Aires from three months to five years after pubiotomy, and states that their present condition shows that the operation is harmless. The patients were able to be up the twentieth day and except for a slight heaviness in the left leg in some cases, which promptly subsided as the leg was used, there were no by-effects. One patient had had sciatic pain after a previous delivery, at which no operation had been done, and there was transient pain of the same kind after the pubiotomy. The incision was subcutaneous in the majority, and this he regards as the preferable technic rather than the original Gigli method. Eight of the women have passed through a pregnancy since and delivery occurred spontaneously in seven, while pubiotomy was done on the other side in the eighth case. The pelvis is not permanently enlarged by the pubiotomy unless there is defective consolidation, and it is unwise to strive for this as it might entail complications, while repetition of the pubiotomy at need is a simple and harmless procedure. Ramos has been able to find records in the literature of thirty other cases in which pubiotomized women passed through a pregnancy later; in eighteen cases delivery occurred spontaneously or after version or extraction of a living fetus, while in twelve cases the pubiotomy had to be repeated or Cesarean section done.

46. **Irreducible Retroversion of Gravid Uterus.**—In Goullioud's case the uterus was held down by a stout, fibrous band passing from the left upper corner of the uterus into the small pelvis. The organs were all sound and as soon as the band was cut the uterus righted itself, which it never could have done without the laparotomy. The diagnosis had been confirmed by the emission of a little urine whenever the posterior vault of the vagina was pushed up. This lifted the retroverted uterus and, as the fundus pivoted upward, the bladder mouth was opened (Laroyenne's sign of retroversion). Goullioud reduces the retroversion when there is no mechanical hindrance by introducing two fingers of the right hand into the vagina, striving to reach the promontory as if to measure the diameter of the superior inlet. In doing this with the gravid uterus in retroversion, the uterus is lifted up a little and by lightly touching it at a tangent, as one starts a ball to rolling, the fundus is pushed forward and lifted at the same time. With the slight impetus thus imparted, the fundus rises out of the cavity in which it has been practically impacted and spontaneously assumes the normal position, the cervix swinging around into place below at the same time. There is less traumatism of the uterus, he says, with this maneuver than with other technics, while the desired result is obtained more readily than by direct pressure.

Archives Générales de Chirurgie, Paris

April, V, No. 4, pp. 361-480

48 Kinking of Splenic Flexure After Removal of Large Abdominal Tumor. (Occlusion intestinale post-opératoire par coudure de l'angle colique gauche.) L. Reully.
49 Traumatic Diffuse Aneurysm of the Leg Cured by Ligation of Popliteal Artery. (Aneurysmes traumatiques de la loge jambière postérieure.) M. P. Bertein.
50 Total Saphenectomy: Twelve Cases. (Cure radicale des varices par la saphénectomie totale.) Bergasse.

Archives des Maladies de l'App. Digestif, Paris

March, V, No. 3, pp. 109-168

51 *Intercostal Pain as Sign of Cholelithiasis. M. E. Binet.

April, No. 4, pp. 169-228

52 Duodenal Ulcer. (Que faut-il entendre par ulcus du duodénum?) P. Caille.
53 Non-Malignant Stenosis of the Esophagus. (Etude clinique et thérapeutique des rétrécissements non cancéreux de l'oesophage.) L. Sencert. Commenced in No. 1.

51. **Intercostal Pain as Sign of Gall-Stones.**—Binet found a tender point in the interspaces in forty-seven, that is, in 63 per cent. of seventy-three patients with cholelithiasis. He found Abraham's sign (pain on pressure of a point midway between the umbilicus and the cartilage of the ninth rib) only in thirty-two. The intercostal neuralgia with gall-stones occurs in the ninth, tenth and eleventh right interspaces, but the most striking sign is a sharp pain felt on pressure of the anterior end of the eleventh rib. These pains and tenderness seem to be characteristic only of cholelithiasis, and they are frequently the first signs of a tendency to gall-stones and may prove the forerunners of an acute attack. The pain is generally elicited only by pressure.

Bulletin de l'Académie de Médecine, Paris

May 23, LXXV, No. 21, pp. 577-624

54 Displacements of the Uterus. L. Picqué and L. G. Richelot.
55 Epidemic Poliomyelitis in 1910. A. Netter.

Obstétrique, Paris

May, IV, N. S. No. 5, pp. 481-592

56 Cholesterin in the Blood During Pregnancy and the Puerperium. (Evolution de la cholestérinémie.) A. Chauffard, G. Laroche and A. Grigaut.
57 Interstitial Pregnancy: Five Cases. (Quelques cas de grossesse interstitielle.) P. Lequeux.

Presse Médicale, Paris

May 31, XIX, No. 43, pp. 445-452

58 Diagnosis and Treatment of Cerebrospinal Meningitis. P. Debré.

June 3, No. 44, pp. 453-468

59 *Vaccination by Way of Intestines Against Typhoid. J. Courmont and A. Rochaix.
60 *Chronic Enlargement of the Parotid. (Le mangy.) M. Fontoynont.

59. Vaccination by Way of the Intestines Against Typhoid.—Courmont and Rochaix report as the result of years of experiments that it is possible to vaccinate against typhoid by high injection into the intestines of a complete eight-day culture of typhoid bacilli killed by heating to 53 C. Goats, guinea-pigs and rabbits thus vaccinated survived intravenous inoculation of two, three or four times the fatal dose of typhoid bacilli rapidly fatal for the controls. The immunity thus conferred lasts for several months and possibly longer. The serum of the animals acquired antitoxic, bacteriolytic, bactericidal and agglutinating properties as also the serum of human beings vaccinated in the same way. As the human serum acquires these properties by the tenth day this is accepted as proof of successful vaccination although it is impossible in man to apply the final touchstone of intravenous inoculation with virulent cultures. The vaccination by way of the intestines was done in injections of 100 c.c. each, through a long cannula, adding 10 or 15 drops of laudanum to the fluid, and giving a total of three injections at five-day intervals. The injection was retained for twenty-four hours. The agglutinating power did not become very pronounced, not over 1 to 30; the bacteriolytic power, 1 to 20; but the bactericidal power rose to 1 to 200, 500 or 1,000. It is possible that by this direct application of the vaccine to the intestines the mucosa becomes more resistant to the passage of typhoid bacilli than if the injection had been made by the subcutaneous route. The facts observed suggest the possibility that the toxins are not absorbed from the intestines and that it is the dead bodies of the bacilli which are taken up into the tissues and start the defensive processes. Attempts to obtain the same results by ingestion of the vaccine gave uncertain results, sometimes positive but far more often negative. The vaccine was made from typhoid bacilli from eight sources so as to ensure polyvalent action.

60. Enlargement of Both Parotids.—Fontoynont says that this affection is very common in the hill districts of Madagascar. It seems to be to the parotid gland what ordinary goiter is to the thyroid.

Semaine Médicale, Paris

June 7, XXXI, No. 23, pp. 265-276

61 *Morphin Addiction. (La désintoxication rapide de la morphine et de la diacétylmorphine, considérée au point de vue hématologique.) M. Chartier.

61. Treatment of Morphin Addiction.—Charlier lauds the superior advantages of rapid—not sudden—suppression of the morphin, aided by stimulation of elimination of the poison by every possible route. His article is mainly devoted to study of the blood-picture during the course of treatment, the findings all confirming the advantages of this method and showing the dangers of sudden suppression or too gradual tapering off, the blood not becoming regenerated as under the influence of the rapid method.

Beiträge zur klinischen Chirurgie, Tübingen

May, LXXIII, No. 1, pp. 1-260

62 *Early Diagnosis and Early Operation for Metastatic Suppuration in the Adipose Capsule of the Kidney. (Metastatische Eiterung in der Nierenfettkapsel.) L. Rehn.
63 Action of Antiferment Serum. Bolt.
64 Experimental Research on Healing of Lung Tissue Surfaces Together. (Ueber Gegenheilung pleurafreier Lungenlappen.) W. Gundermann.
65 Successful Removal of Tumor in Vagus Nerve. H. Semel.
66 Malignant Transformation of Papilloma in Bladder. (Ueber Metaplasie von Blasenpapillomen in Carcinom.) R. Syring.
67 *Inguinal Operation for Femoral Hernia. A. Reich.
68 *Operative Treatment of Peripheral Facial Paralysis. R. Eden.
69 *Origin and Treatment of Perforating Ulcer of the Foot. (Zur Entstehung und Behandlung des Mal perforant du pied.) M. Hofmann.
70 Megacolon and Its Connection with Anomalies of the Sigmoid Flexure. (Ueber die Hirschsprung'sche Krankheit und ihre Beziehungen zu kongenitalen und erworbenen Form- und Lageanomalieen des Colon sigmoideum.) G. E. Konjetzny.
71 Gunshot Wounds of the Pancreas. (Pankreasschussverletzungen.) L. H. Diehl.
72 Lymphangiomas in Bone. L. Wrede.
73 Chondromatosis of the Bones. P. Frangenheim.
74 Restoration of Nasal Septum. (Ersatz des Nasenseptums.) P. Frangenheim.

62. Metastatic Suppuration in the Kidney Capsule.—Rehn discusses the bacteriology, anatomy and etiology, diagnosis and operation and reports nine cases in detail and some experimental research. The latter shows that metastatic perirenal suppuration may result from the passage of virulent germs through the capsule, destroying it, but also by primary metastasis in the vessels of the fibrous capsule. Some possibly slight injury of the parenchyma of the kidney is probably required and some focus of virulent staphylococci in the body, sending out at intervals its products, while the diameter of the capillaries is too small at certain places for the clumps of cocci. An early operation is the only salvation, and he thinks it is possible to recognize the metastatic abscess in its incipiency by the violent pain, its localization corresponding to the area of the adipose capsule of the kidney. There is also chilliness or an actual chill, followed by remittent fever. These symptoms accompanying furunculosis or a carbuncle point directly to suppuration around the kidney, and the diagnosis is confirmed by tenderness in the kidney region. If the manifestations are severe, operative treatment should follow at once. In one of Rehn's cases the first sign of trouble was violent delirium. There may be polyuria but negative findings in respect to the urine do not exclude suppuration in the kidney and its adipose capsule. Exploratory puncture is of little use and may prove dangerous. The kidney should be amply exposed and the abscess must be sought close to the surface of the kidney until it is found.

67. Inguinal Operation for Femoral Hernia.—Reich gives an illustrated description of the technic which he commends for femoral herniotomy. He attacks the sac from the rear, through the inguinal canal, drawing the sac out through this canal and putting an end to the tendency to hernia by suture of the muscles, periosteum and ligament in the inguinal region.

68. Surgical Treatment of Facial Paralysis.—Eden reviews the experiences in this line to date, the ultimate outcome of nerve-grafting operations not being very satisfactory. He then reports a plastic operation on the masseter muscle for the purpose, the results of which have been excellent. The improvement secured by the operation was immediate and it seems permanent, neither of which is secured by a nerve-grafting operation.

69. Perforating Ulcer of the Foot.—Hofmann was unable to find any other cause for the perforating ulcer of the foot in his fifteen cases than chronic alcoholism and labor requiring long standing; the patients were all elderly men. During the three years in question he never encountered a case of the kind in a tabetic. The abscess was on one foot only in five; both feet were affected in the others. Treatment was operative in every case and he insists on the necessity for radical measures to avert serious complications.

Berliner klinische Wochenschrift

May 29, XLVIII, No. 22, pp. 973-1020

75 *Fatality After Salvarsan in Tabes. (Ueber einen Todesfall nach Behandlung mit Salvarsan bei spinaler Erkrankung mit mikroskopischer Untersuchung des Rückenmarks.) A. Westphal.
76 Roentgenography of the Stomach. (Röntgenographische Bestimmung der Lage des Magens.) S. Talma.
77 *Quantitative Determination of Albumin in Stomach Content. (Bestimmung gelöster Eiweissstoffe im Mageninhalt.) W. Wolff and P. Junghans.
78 Experimental Surgery of the Esophagus. E. Unger, M. Bettmann and W. Pincus.
79 Metastatic Suppurative Focal Pneumonia After Tonsil Abscess. F. Cohn.
80 *Anaphylatoxin. H. Ritz and H. Sachs.

75. Recent Syphilitic Meningitis with Tabes: Death After Salvarsan.—The necropsy findings in Westphal's case indicated recent syphilitic meningitis with true tabes. The patient was a woman of 33 who had never taken treatment for her syphilis, until 0.4 gm. of salvarsan was injected in the gluteal muscles. Seven hours afterward there was sudden trouble in breathing soon leading to complete arrest which proved permanent notwithstanding artificial respiration for an hour. The fatality was evidently due, he thinks, to sudden paralysis of the phrenic nerve from pressure from the hyperemia and edema in the spinal canal induced by the

action of the drug—all the regional tissues, including the phrenic nerve, being already pathologic from the syphilitic disturbances. This conception of the case harmonizes with the frequent experience of neuropathologists that nerves suffering from toxic, infectious or other injurious influences are peculiarly liable to become paralyzed even from some slight injury such as moderate pressure. If the necropsy had been omitted and the preexisting, clinically latent inflammation of the phrenic nerve had not been discovered the fatality might have been ascribed to the toxic action of the drug alone. Westphal agrees with Ledermann that it is highly probable that the salvarsan is liable to rouse a latent syphilitic neuritis to active manifestations, but the case here reported is the first one, he thinks, in which anatomic testimony as to such an occurrence has been presented. He adds that the study of the neurorecurrences under salvarsan treatment is extremely important to throw light on the earliest stages of nerve syphilis. One practical conclusion from his case is that the slightest suspicion of any syphilitic affection in the upper spinal cord should impose the greatest caution in the administration of salvarsan. It should be begun with minute doses to avoid an acute stormy reaction. Extreme care is necessary if anything points to an affection of the phrenic, vagus or other important nerves or their nuclei. At the same time, he would not summarily exclude all such patients from salvarsan treatment.

77. **Albumin in Stomach Contents with Cancer.**—Wolff and Junghans state that the dissolved albumin in the stomach content does not afford any exact information as to the proteolytic function of the stomach but, at the same time, in connection with other signs, it may be found very useful in differentiating gastric cancer. In eight cases of gastric cancer the proportion of dissolved albumin in the stomach content was very high while the proportion of pepsin and hydrochloric acid was remarkably low. He thinks this combination is certainly suggestive of cancer; it is evidently the result of several factors including the proportionately large amount of albumin in the secretions of the ulcerating tumor. (This is the basis of the Salomon test for gastric cancer.) Another factor is the presence of the peptid-splitting ferment (the basis of the Neubauer and Fischer test). It is also possible that with gastric cancer the mucosa is injured to such an extent that absorption is materially reduced. They apply the test for albumin by diluting the stomach content obtained one hour after the test breakfast. The beakers contain the dilutions in turn from 0.025 to 10 up to 1 to 10. In each beaker 1 c.c. of the reagent is superimposed on the diluted stomach content. The reagent is a mixture of 0.3 parts phosphotungstic acid; 1 part hydrochloric acid, 20 parts 96 per cent. alcohol, and water to 200 parts. The standard is the dilution in the first beaker in which no ring forms in contact with the reagent. The findings with this simple test compare favorably with those of various other methods. The albumin index is the dilution, so that the figures are 10, 20, 40, 100, 200 and 400.

80. **Anaphylatoxin.**—Ritz and Sachs report extensive research showing among other things that kaolin is able to prevent the formation of anaphylatoxin by the reciprocal action of bacilli and guinea-pig serum. Kaolin is also able to deprive a solution of anaphylatoxin of all toxicity.

Correspondenz-Blatt für Schweizer Aerzte, Basel

May 20, XLI, No. 15, pp. 528-560

81 *Combination of Tuberculosis and Syphilis. (Tierexperimenteller Nachweis, Züchtung und Färbung des Syphilis-Erregers.) C. Spengler.

82 The Sphygmometer. (Ein neuer Apparat zur Prüfung der Herzfunktion.) H. Schulthess.

June 1, No. 16, pp. 561-592

83 Sphygmobolography. (Ueber die Verwendung moderner Sphygmographen, speziell des Jaquet'schen, zu sphygmobolometrischen Untersuchungen. Die Sphygmobolographie, eine klinische Methode.) H. Sahli.

81. **Mixed Syphilis Plus Tuberculosis.**—Spengler says that in many cases of pulmonary phthisis with much expectoration the disease is in reality a combination of syphilis and tuberculosis although the syphilis may not manifest any signs of its presence. He has been able to cultivate spirochetes from the sputum in such cases, along with the tubercle bacilli, finding both the pallida and the refringens type, and obtaining positive results on inoculation of animals. Rabbits which have been once or several times inoculated with syphilis and have spontaneously recovered are sensitized and respond with peculiar sensitiveness to inoculation of syphilis germs when the germs are scanty or the syphilitic infection latent. He discusses the simplest and most reliable means of determination of the spirochetes and interpretation of the findings.

Deutsche medizinische Wochenschrift, Berlin

June 1, XXXVII, No. 22, pp. 1009-1056

84 *Heredity. (Ueber Vererbung.) H. Ribbert.

85 *Salvarsan in Syphilis of the Central and Spinal Nervous System. G. Treupel.

86 *Sensitive Skin of the Tuberculous. (Die Toxinempfindlichkeit der Haut des tuberkulös infizierten Menschen.) J. Sorgo.

87 *Pulmonary Tuberculosis and Pregnancy. (Zur Frage der Lungentuberkulose und Gravidität.) L. J. Rabnow and K. Reicher.

88 *Serodiagnosis of Pregnancy by Epiphanin Reaction. (Experimentelle Studien mit artgleichem Synzytiotoxin; Schwangerschaftsdiagnose mittels der Epiphaninreaktion.) E. Mosbacher.

89 Improved Technic for Cultivation of Typhoid Bacilli. F. Dennemark.

90 *Chloroform not an Antidote for Poisoning from Nitrous Gases. F. Curschmann.

91 A Normal Pregnancy After Nephrectomy. J. P. Haberern.

92 *The Wassermann Reaction in Lead Poisoning. Schnitter.

93 *Homeopathy. (Hahnemanns Lehre und die heutigen Homöopathen.) E. Harnack.

84. **Heredity.**—Ribbert argues that inheritable pathologic changes in the body must have appeared first in the germ-cell, not in the developed organism, insisting that there can be no inheritance of acquired properties.

85. **Salvarsan in Syphilis of the Central Nervous System.**—Treupel has treated sixty-two patients in this category with salvarsan, making a total of 100 injections. He tabulates the details in the various groups, his conclusions being that intravenous injection of salvarsan is justified in tabes and paralysis when the interval since infection has not been too long and the nervous troubles are of recent onset. He has not witnessed an unmistakable arrest of the affection in any instance; it is possible that the dosage—a total of 1.2 gm.—was too small. He insists strictly on the patient's keeping quiet and under his supervision for a time after each injection.

86. **Skin of the Tuberculous Extrasensitive.**—Sorgo found that the skin of the tuberculous reacted with a specific intensity to other toxins as well as to tuberculin, showing that the skin is extrasensitive. The organism reacts in an abnormal manner to all toxins, not merely to tuberculin, thus disproving the assumption of a special allergy to the tuberculosis toxin. The allergy is merely an extrasensitiveness to the action of toxins in general. This explains a number of hitherto puzzling facts, such as the extrasensitiveness of rabbits bought in the market in comparison to those raised by the experimenter; the rabbits were already tuberculous when bought and thus extrasensitive. Sorgo's experiments were made with diphtheria, dysentery or cholera toxins or a combination of two or more, injected into groups of from thirteen to fifty patients at a time. Further evidence in favor of his theory is that after a new injection of tuberculin there was a lively reaction at the points where the tuberculin, diphtheria toxin or dysentery toxin had been injected long before.

87. **Pulmonary Tuberculosis and Pregnancy.**—Rabnow and Reicher state that ten pregnant working women who were under treatment for pulmonary tuberculosis during 1909 passed through a normal childbirth and some of them nursed their children, and yet the pulmonary tuberculosis has shown no signs of a progressive course in seven of the women. Only one has lost over 10 pounds in weight and four have gained from 2 to 22 pounds and over. Only one of the women was a primipara; the others had borne from one to eight children previously and two have borne two children since they have been coming to the tuberculosis dispensary. Seven of the ten children are living; three others died between the fourth and the seventh months from tuberculous enteritis. Five of the women have tubercle bacilli occasionally in their sputum, one out of four examinations giving positive findings.

88. **Serodiagnosis of Pregnancy by the Epiphanin Reaction.**—This serologic surface test is somewhat similar to the meiostagmin reaction. The epiphanin reaction was described in THE JOURNAL, Jan. 21, 1911, p. 228, and the meiostagmin reaction was discussed editorially May 28, 1910, p. 1790. With this physiochemical test, Mosbacher states that it is possible to determine whether a woman is pregnant before any other signs of conception have become apparent. He found that gravid guinea-pigs succumbed with symptoms of anaphylaxis when injected with a filtrate of guinea-pig placenta, while non-gravid animals and gravid animals near the end of gestation bore the injection without harm. The tolerance increased in proportion to the interval since conception. The animals all died with signs of anaphylaxis when the injection was made soon after the guinea-pigs had been fecundated.

90. **Treatment of Industrial Intoxication from Nitrous Gases.**—Curschmann has been investigating the assumed efficacy of chloroform as an antidote for industrial poisoning with nitrous gases, and has found that not only is chloroform not an antidote but that it does direct harm, superposing the intoxication from the anesthetic on that from the gases. Oxygen, on the other hand, answers the therapeutic indications, especially if supplemented with blood-letting.

92. **Wassermann Reaction in Lead Poisoning.**—Schnitter obtained a positive reaction in four of sixteen patients with severe lead poisoning. Three of the four were free from syphilitic taint but all in this group had been working in lead for years.

93. **Homeopathy.**—Harnack comments on the absolute sterility of the adherents of homeopathy in respect to original scientific work. Not one has ever made the slightest contribution, he declares, to the progress of scientific or practical medicine.

Jahrbuch für Kinderheilkunde, Berlin

LXXXIII, Supplement, pp. 1-288

94 *The School and Scoliosis. A. Schanz.
95 Experiences with Diphtheria at Moscow, 1903-09. W. Colley and B. Egis.
96 *Meningeal Symptoms in Scarlet Fever; Sixteen Cases. (Meningismus bei Scharlach.) H. Sachs.
97 *Study of the Viscosity of the Blood. (Viskosimetrische Studien.) J. Trumpp.
98 *Simplest Dietetic Treatment of Digestive Disturbances in Infants. (Zur Behandlung ernährungsgestörter Säuglinge mit einfachsten Mitteln.) K. Oppenheimer and O. Funkensteln.
99 *Hemorrhages in the Parathyroids and Their Relation to Tetany in Children. (Epithelkörperchenblutungen und ihre Beziehungen zur Tetanie der Kinder.) P. Auerbach.
100 The Fat Content of Infants' Stools. (Ueber den Fettgehalt der Fäzes der Säuglinge nebst einigen anderen Bemerkungen.) H. Saito.
101 Research on Metabolism of Infants on Whey. (Ueber Ernährung debiler Kinder mit molkenreduzierter Milch an der Hand von Stoffwechseluntersuchungen.) E. Müller.

May, No. 5, pp. 545-674

102 Idiopathic Osteopsathyrosis. S. Miura.
103 Influence of Sugar on Intestinal Flora of Children. (Einfluss des Zuckers auf die Darmflora der Kinder.) E. Hartje.
104 Changes in the Mineral Constituents of Infant's Body in Acute and Chronic Loss of Weight. (Veränderungen im Mineralstoffbestand des Säuglingskörpers bei akuten und chronischen Gewichtsverlusten.) L. Tobler.
105 Infectious Myelocytosis. (Beitrag zur Frage der myeloischen Blutbildung.) P. Jungmann and P. Grosser.
106 *Chronic Familial Tetany. F. Schiffer.
107 *Adenoid Vegetations are Generally Congenital. (Sind die adenoiden Wucherungen angeboren?) E. Erdely.

94. **The School and Scoliosis.**—Schanz argues that the school does not cause curvature of the spine but in reality protects against it as the spine does not have so much burden to bear when the child is seated as when it is running about. The child at its desk seldom keeps in the same position for any length of time, it is constantly changing its position, and when it rests on its elbows or rests its head on its hand, this relieves the spine of just so much weight. He is convinced that the tendency to curvature is inaugurated before the child enters on its school life, from the mechanical stress of the burden on the spine. During school life the child grows so fast that the curvature is liable to develop or increase, as a growth curvature, and under the debilitating influence of puberty and of the acute infectious diseases, which are generally contracted during school life. Consequently the scoliosis which is observed in children during school life has nothing to do with the school itself except as the indoor confinement has a depressing influence on the general health. In prophylaxis frequent pauses for gymnastic exercises or recess are necessary, and measures to ward off infectious diseases. Still more important is the early recognition of the tendency to scoliosis, and here the medical school inspectors are especially useful as they should learn to detect scoliosis and exclude such children from the general gymnastic exercises and notify the parents that they must be taken to a specialist for treatment of the beginning deformity. The school inspectors and the orthopedists can thus work together in a most fruitful field, but he warns that the medical inspectors must beware of trying to treat the scoliotic pupils themselves. They have not the time, appliances or skill and precious time is liable to be wasted so that proper treatment will come too late.

96. **Meningeal Symptoms in Scarlet Fever.**—Sachs encountered sixteen cases of scarlet fever with the clinical manifestations of meningitis among 400 scarlet fever patients in the course of nine months. There were two adults in the group and three children, 2, 4 and 5 years old; the others were between 8 and 11. The necropsy findings in two of the five cases with a fatal termination are reviewed. Nothing was found to explain the severe meningitic symptoms, the condition being more a meningism, a pseudomeningitis. When the fluid escaped under high pressure on lumbar puncture, great relief followed, but when the pressure was not high, the lumbar puncture did not seem to benefit, but it proved very instructive by permitting the exclusion of a suppurative or serous meningitis. The prognosis did not seem to be affected by the pseudomeningitis as the severity of the scarlet fever was what determined the outcome. The meningeal symptoms seemed to be due to a combination of vasomotor changes and injuries affecting the central nervous system, similar to the meningeal symptoms observed with influenza. The cases reported show that hyperesthesia, rigidity of the neck and Kernig's sign may be present without any increase in the pressure in the lumbar sac.

97. **Viscosity of the Blood.**—Trumpp devotes sixty-four pages to the findings with the viscosimeter and the influence of various factors on the viscosity of the blood, tabulating the findings in over 213 patients, young and old. They throw so much light on the condition that he declares that viscosimetry is indispensable for estimating one property of the blood which is extremely important for the work of the heart. The great drawback of the method is that the peripheral blood has to be used and this varies so widely in its composition, on account of the work of the heart at the moment, the body and room temperature and other factors.

98. **Treatment of Infants with Digestive Disturbances.**—Oppenheimer and Funkenstein present here a detailed study of 158 infants with more or less serious digestive disturbances who were treated with the simplest measures, such as milk, tea, soup and flour. They do not know of any extensive research of the kind with these ordinary, simple measures, although the literature teems with reports of similar research on the effects of buttermilk, albumin milk, malt soup, etc. A favorite and very useful method was to boil the milk and then keep it on ice and give the infant 1 or 2 teaspoonfuls every half hour, very cold. The total in the first twenty-four hours was only a tumblerful, but benefit was apparent at once as a rule and the infant ceased to lose weight. This iced milk gave especially good service in cases of alimentary intoxication; in these cases it was preceded by a day in which no food was given the infant.

99. **Hemorrhages in the Parathyroids.**—Auerbach found five parathyroids at autopsy of one of thirty-three infants, four in nine, three in ten, two in five infants and only one parathyroid in eight. All but thirteen of the children had shown an unmistakable spasmophilic diathesis during life. Examination of the parathyroids showed traces of hemorrhage in them in fully 76 per cent. of all the infants, including those both with and without the spasmophilic tendency. Cysts were also found occasionally in the parathyroids. Birth asphyxia cannot be responsible for all these cases of hemorrhage.

106. **Familial Chronic Tetany.**—Schiffer reports the case of a healthy couple with five children, all the children developing tetany before they were 1 year old, three dying in convulsions before they were 2 years old, and the other still with severe tetany. There were no signs of tetany in any of the children until after they were weaned. Necropsy of one of the children failed to reveal anything pathologic in the parathyroids.

107. **Congenital Adenoid Vegetations.**—Erdely's experience has been that these vegetations are generally congenital and that they should be removed when they cause symptoms. It is better to wait until the child is 6 months old. Thirty-two cases are reviewed.

Monatsschrift für Geburtshülfe und Gynäkologie, Berlin

May, XXXIII, No. 5, pp. 553-676

108 *Formation of Vagina. (Ueber den Ersatz der Vagina bei vollkommenem Defekt derselben.) J. A. Amann.
109 Deformity of Cartilage in the Fetus. (Ueber Chondrodystrophia foetalis.) R. Basset.
110 *Origin of and Operation for Prolapse of the Uterus. O. v. Franqué and A. Sippel.
111 Retroversion and Prolapse of the Uterus. L. Heidenhain.
112 Vaginal Methods in Gynecology. T. Dobbert and D. v. Ott.

108. **Vagina Made from Rectum.**—The anterior wall of the ampulla of the rectum was unusually large, and Amann drew it down to make a vagina in the case reported in which the vagina was entirely lacking. A segment of the anterior wall of the rectum might be used, excising it between the flexure and the anus, leaving the latter intact, but excision was not required in his case. The article is illustrated.

110. **Operative Treatment of Uterine Prolapse.**—Franqué has performed the Schauta-Wertheim operation for extensive prolapse in sixty-four cases, and has been much gratified at the results.

Münchener medizinische Wochenschrift

May 30, LVIII, No. 22, pp. 1169-1224

113 *Salvarsanized Milk. (Salvarsanmilch.) A. Jesionek.
114 *Changes in Thyroid and Hemoglobin Percentage in Chlorosis. (Schilddrüsenveränderungen und Hämoglobingehalt des Blutes bei Chlorose.) E. Handmann.
115 *Paralysis After Epidemic Poliomyelitis. (Zur Frage der poliomyelitischen Lähmungen.) R. Pürckhauer.
116 Present Status of Bilharziosis. (Unsere jetzigen Kenntnisse über die Schistosomiasis.) M. zur Verth.
117 *Treatment of Anemia with Salvarsan. C. Leede.
118 Syphilis at Outset of Secondary Phase Affecting the Labyrinth of the Ear. K. Hintze.
119 Dysentery Bacilli-Carriers. (Zur Frage der Bedeutung der Ruhr-Dauerausscheider.) K. E. Boehncke.
120 Technic of Clinical Myography. A. Jacquet.
121 Auto-Lavage of the Bladder. (Die Blasenspülung in der Hand des Patienten.) N. Meyer.
122 Interpretation of Roentgen-Ray Findings. (Zur diagnostischen Qualität des Röntgenbildes.) F. Dessauer.
123 *The Collodion Ring in Treatment of Furuncles. W. Fuchs.
124 Medical Impressions in England and the United States. (Reiseeindrücke aus England und den Vereinigten Staaten.) A. Hengge.

113. **Salvarsanized Milk.**—Jesionek reports experiences which seem to show that arsenic passes into the milk after administration of salvarsan. He was unable to confirm the good results obtained by Taege and Duhot in syphilitic infants nursing mothers who had been given salvarsan. In his cases the children did not do well and a severe eruption developed each time the day after the mother had had the injection of salvarsan. The eruption did not seem to be of a toxic nature nor a Herxheimer reaction, but seemed to be the result of flooding the infant with syphilitic virus. Something seemed to have been transmitted to the infant in the mother's milk which aroused the spirochetes in the infant to pathogenic activity or rendered such activity possible. Two such cases are described in detail; the prompt subsidence of the eruption on change to cow's milk confirmed the assumption as to the influence of the milk in question. He treated a goat with intravenous injections of salvarsan and fed the milk to a syphilitic 5-year-old child, and he thinks that the results justify wide application of this method in treatment of syphilitic children. It is more reasonable to assume that the salvarsanized milk is better for the child, being free from syphilitic toxins, than the milk of a syphilitic woman even when the milk contains antibodies. In any event the syphilitic woman had better refrain always from nursing the child for a few days after injection of salvarsan, allowing time for the elimination of the assumed endotoxins. The best of all methods would be to have the child nursed by a non-syphilitic woman who had taken salvarsan. As this is impracticable, the next best is to use the milk of a goat or cow under the influence of salvarsan, feeding the child with this salvarsanized milk until it is tided past the worst manifestations of the disease and the dangers of intense endotoxin action, following this with mercury.

114. **Thyroid Changes in Chlorosis.**—Handmann states that it must be more than a coincidence that goiter was apparent in twenty-five of his forty-four patients with chlorosis. In four cases the goiter had increased during the chlorosis and in three other cases there were symptoms of exophthalmic goiter. In more than half of the total forty-four cases, the hemoglobin proportion was above 80 per cent. and in twenty-three cases 100 per cent. or above 90. As the patients recovered under iron, no change was apparent in the goiter.

115. **Epidemic Poliomyelitis.**—Pürckhauer insists that the paralysis which follows this disease is in many cases not an actual paralysis but more the results of injury from overstretching of muscles in the course of the disease. The loss of elasticity in consequence of overstretching may simulate paralysis. If the muscle is allowed to retract by bringing closer together its points of attachment, it recuperates in time, but is liable to lose its hardly regained elasticity if subjected to new overstrain. He reports some instructive cases of this alternation of functioning and paralysis. Among nineteen cases of paralytic pes equinus, the extensors were overstretched but regained their functioning when permitted to retract. In management of a case of poliomyelitis, as soon as the painful stage has passed, every effort must be made to prevent overstretching of the muscles.

117. **Salvarsan in Anemia.**—Leede reports a case of what was supposed to be pernicious anemia in which great improvement was obtained under salvarsan, and the syphilitic nature of the anemia became evident later. The benefit from salvarsan may be accepted as differentiating the syphilitic nature of the anemia. In true pernicious anemia his experiences have been such as to contra-indicate its use in future.

123. **Collodion Ring in Treatment of Furuncles.**—Fuchs paints a circle of collodion around the base of the boil, leaving the inflammatory focus untouched. He repeats the concentric application several times a day, widening the ring outside but not encroaching on the boil. The effect is to force the boil to early ripening by the constriction from the collodion ring while the latter prevents the spread of the process. He has been applying this simple measure for years and commends it in high terms. In two cases described the collodion was applied repeatedly for three days with prompt spontaneous evacuation of the boil.

Wiener klinische Wochenschrift, Vienna

May 25, XXIV, No. 21, pp. 735-774

125 *Disinfection of Anthrax-Infected Hides and Skins. (Ein unschädliches Desinfektionsverfahren für milzbrandinfizierte Häute und Felle.) A. Schattenfroh.
126 *The Acetonitril Reaction, Especially for Differential Diagnosis of Exophthalmic Goiter. G. Ghedini.
127 *Symptomatology of Action of Salvarsan. V. Hrdliczka.
128 Stramonium Cigarettes. (Darf man den Stramoniumzigaretten eine arzneiliche Wirkung zuschreiben?) G. Günther.
129 Present Status of Plague in India. E. Wiener.

125. **Disinfection of Hides and Skins.**—Schattenfroh has found that hides and skins infected with anthrax bacilli can be effectually sterilized by pickling for several days in a solution containing 2 per cent. hydrochloric acid and 10 per cent. salt at ordinary temperature. The same effect can be realized in six hours with 1 per cent. hydrochloric acid and 8 per cent. salt, if a temperature of 40 C. is constantly maintained. He advocates compulsory sterilization by one of these methods before the skins are put on the market. The procedure, he says, is harmless for the hides.

126. **The Acetonitril Reaction in Differentiation of Exophthalmic Goiter.**—Ghedini has been applying for differentiation of the tendency to excessive functioning on the part of the thyroid gland, Reid Hunt's discovery that white mice become

more resistant to acetonitril when fed with thyroid. Ghedini used in his experiments white mice weighing 15 or 20 gm.; they were fed with bread, dipped in water, and he found that from 4.5 to 5.5 milligrams of acetonitril per gram of body weight was the fatal dose, killing the previously untreated animal in from half an hour to three hours. The blood from the patient under examination was evaporated in a vacuum, ground and mixed with zwieback into pills, each containing 0.2 gm. of the pulverized blood. The pills were given the animals fasting for about ten days, until each mouse had taken thus about 2 gm. of the blood-powder. About 25 c.c. of blood were required to produce this amount of powder for three mice. The mice were then injected with the acetonitril in the fatal dose, or ½ milligram more per gram of body weight. In his experiments the animals all died when the blood had been derived from patients with affections other than those suggesting the Basedow triad, while nearly all the animals bore the injection of the acetonitril without apparent harm when the blood had come from patients with exophthalmic goiter or other signs of excessive functioning of the thyroid gland. Ghedini has found this means of differentiating the tendency to exophthalmic goiter very useful already, he states, as in Vienna cases are encountered almost daily in which it is important to determine the prognosis in supposed exophthalmic goiter. He urges others to apply this method of differentiation to ascertain its reliability. (Reid Hunt's article on "The Probable Demonstration of Thyroid Secretion in the Blood in Exophthalmic Goiter" was published in THE JOURNAL, July 20, 1907, page 240, discussing the acetonitril reaction, but at the time he had applied the test to blood from only one cadaver, that of a woman who had had exophthalmic goiter and pneumonia.)

127. **By-Effects of Salvarsan.**—Hrdliczka reports a case which he regards as a fatal toxic encephalitis following injection of salvarsan in a robust young army officer, 33 years old, seven years after infection with syphilis. He had taken systematic, intermittent courses of mercury for five years, although there were no manifestations of the disease after the first two or three years. He applied for injection of salvarsan (Sarajevo Hospital) and the hospital records mention a two-weeks' periostitis in the leg and enlargement of glands with positive Wassermann reaction. The dose of 0.6 gm. of salvarsan was injected into the gluteal muscle without apparent local reaction and the officer returned to duty three days later, Oct. 27, 1910. During January complete loss of appetite and slight nausea developed, with general weakness, soon followed by disturbances in vision and vertigo. Hrdliczka then saw him for the first time and the patient told him that until this time he had had no manifestations of disease for the last five years; the Wassermann reaction was negative. Symptoms of encephalitis became evident and a sausage-shaped resistant patch could be felt in the gluteal muscle and was excised; large amounts of salvarsan and arsenic were found but there was no striking necrosis. March 1, vigorous mercurial and iodid treatment was instituted but without effect; the symptoms indicating encephalitis continued to progress and the patient died March 8. The report is followed by comment from Ehrlich who regrets that there was no necropsy as post-mortem examination revealed a tuberculous meningitis in one case recently which had been diagnosed as a syphilitic or salvarsan injury of the meninges. Ehrlich adds that the assumption of a toxic affection prevented the vigorous antisyphilitic treatment which should have been instituted earlier, and which might have saved the patient if the trouble had been, as he surmises, merely a recurrence of active syphilis. It is possible, he suggests, that syphilitic lesions in the stomach might have been responsible for the cachexia. In conclusion Ehrlich remarks that for months he has been doing all he could by pen and word of mouth to banish forever the intramuscular technic for injection of salvarsan, as he regards it as inadequate.

Zeitschrift für Urologie, Berlin

May, V, No. 5, pp. 321-408

130 *Diagnosis and Symptoms of Nephrolithiasis. K. Keydel.
131 *Surgery in Nephrolithiasis. (Zur Chirurgie der Nierensteine.) P. A. Müller.
132 Roentgenography of Nephrolithiasis. (Die Röntgendiagnose der Nephrolithiasis.) G. R. Hartung.
133 Bacteria of Normal Male Urethra. (Bakterien der normalen männlichen Harnröhre.) R. Picker.

130. **Kidney Calculi.**—Keydel discusses the lessons learned from fifty cases of nephrolithiasis; an operation was done in twenty-four and in nineteen the calculus was spontaneously voided. His cases show the increasing importance of the functional tests for determining the condition of the kidney. He prefers Luy's intravesical segregator to catheterization of the ureters for estimation of the amounts of urine secreted by each kidney; misleading inferences are liable from minute traumatic hemorrhage. The kidney is one of the most nervously sensitive organs in the body, so that a difference in the amount of urine from the two kidneys is additional evidence in favor of the presence of a stone. In none of his cases in which the amount of urine was approximately the same on both sides, was a stone perceptible in the skiagraph. The main questions with nephrolithiasis are the severity of the trouble and the functional capacity of the other kidney. A prostatic lesion may keep up an irritation in the urinary apparatus and thus induce secondary production of stones. In all his cases of the kind, there was a history of gonorrhea. The diagnosis in these cases was specially difficult as the disturbances indicated more an affection of the urethra and bladder than of the kidneys. It is especially in such cases as these that the tests of the sufficiency of the kidney, with obstinate although perhaps not very serious symptoms on the part of the urinary apparatus, rapidly clear up the diagnosis. It is almost beyond question that the functional methods will be constantly opening new perspectives and showing up new differentiating points in kidney disease. He agrees with Israel that there is danger that clinicians will learn to rely too much on skiagraphs.

131. **Surgery of Kidney Calculi.**—Müller has operated on four women and six men for kidney stones. The aseptic calculi were all single, composed of urates in four, of oxalates in three cases. In the septic cases the calculi were multiple and all either phosphates, carbonates or urates. One patient was a woman, aged 42, with bilateral infected kidney stones and left ureter stone, and six operations had to be performed before she was relieved; there is still a fistula left. The trouble was evidently an ascending infection from an infectious catarrh of the bladder, set up by catheterization at her last childbirth. The bladder trouble apparently healed but evidently latent infection persisted in the ureter and kidney pelvis. An exacerbation of the pyelitis simulated typhoid. Radioscopy failed to reveal the stones in this case, and cystoscopy and segregation of the urine proved deceptive and seemed to indicate normal conditions on the left side when in fact this was diseased more seriously than its mate. The functional tests showed normal conditions in the kidneys and these findings were confirmed in the course of the case, the patient bearing without injury the numerous operations and the necessary general anesthesia. No one symptom is pathognomonic for kidney stone. Frequent desires to urinate and pains may prove instructive when they come on after a concussion or violent exercise. In one of his cases the first attack of colic developed after gymnastic exercises. Radioscopic findings may be negative. He advises removing the calculus whenever its presence is certain, even although it may be causing no disturbance at the time. In the casually discovered cases he advises an operation even more readily, and invariably in every case of complete anuria for more than forty-eight hours. The renorenal reflex not only transmits the pain and spasm but may lead to sympathetic inflammation and further mischief. In the bilateral cases operative treatment should be advocated if in any way possible, under all circumstances. He does not anticipate any benefit from internal medication in nephrolithiasis. Spontaneous expulsion is the rare exception. The best means to prevent recurrence of stone in the kidney is to keep up a vigorous secretion of urine, especially on retiring and during the night, as the night urine is particularly inclined to have considerable sediment. He reiterates in conclusion that the cooperation of internists and surgeons is particularly beneficial in cases of nephrolithiasis.

Zentralblatt für Chirurgie, Leipsic

May 27, XXXVIII, No. 21, pp. 725-756

134 *Local Anesthesia in the Orbit and in Children. (Bemerkungen zur Braun'schen Lokalanästhesie.) L. Kredel.
135 Human Hair as Suture Material for Vessels. (Frauenhaar als Material für die Gefässnaht.) S. Sofoteroff.
136 *Improved Technic for Resection of Rectum. (Methode das exzidierte Rektum durch andere Darmteile mit Vermeidung der Gangrängefahr zu ersetzen.) A. Krogius.

134. **Local Anesthesia.**—Kredel discusses the behavior of the optic nerve with intra-orbital injections. He also refers to the question of local anesthesia for children. It is only rarely that it can be used for children but he advocates it for empyema operations. It can be successfully used for infants if the child is not fed before the operation and is given its bottle only when all is ready for the operation. By the time it has emptied the bottle it has become accustomed to what is going on and pays little attention to it, the sensation of comfort aiding to keep it quiet for a time. Even for harelip operations he urges that local anesthesia should be given a trial.

136. **Substitution for Rectum of Other Part of Bowel.**—Krogius seeks to show in his illustrated description that it is a simple matter to draw down a loop of the colon and suture it to the anus after excision of the entire rectum for cancer. Or a stretch of small intestine might be cut out and used to make a new rectum.

Zentralblatt für Gynäkologie, Leipsic

May 27, XXXV, No. 21, pp. 769-800

137 *Early Operation for Uterine Cancer. K. Ulesco-Stroganowa.
138 Serotherapy of Pregnancy Toxicoses. (Ein Versuch, Schwangerschaftstoxikosen durch Einspritzung von Schwangerschaftssecrum zu heilen.) W. Rubsamen.
139 *Eclampsia Without Convulsions. (Zur Symptomatologie und Diagnostik der Eklampsie.) L. Gussakow.
140 The Electrothermic Sound. A. Schücking.

137. **Early Operations for Alleged Uterine Cancer.**—Stroganowa cites three cases from her experience which show that atypical proliferation of the uterine epithelium may occur so that the picture of malignant disease may be presented and yet there is nothing of the kind. This possibility should be borne in mind especially when there are coexisting processes, such as gonorrhea, erosions, syphilis or tuberculosis. It is better to treat such patients for the underlying affection instead of removing the uterus. A new exploratory excision later will show the true nature of the proliferating process. In two of the cases she reports the irritation from erosions was apparently responsible for the atypical proliferation; in the third case, gonorrhea.

139. **Eclampsia Without Convulsions.**—Gussakow reports a case of fatal eclampsia coming on with delivery, the patient soon dying with pulmonary edema but without actual convulsions at any time. He explains the trouble as the result of abnormal metabolism in the fetus, the resulting toxins passing into the maternal circulation and inducing anaphylaxis; death occurred too soon for any specially characteristic pathologic anatomic changes in the organs. In a second similar case of sudden death soon after delivery, the pathologic anatomic changes in liver, stomach, etc., were pronounced, but the symptoms had been the same as in the first case. All the data presented seem to indicate that the convulsions in eclampsia are merely one manifestation of the affection and they are liable to be missing in certain cases. The form of eclampsia without convulsions is unusually severe, the mortality ranging from 77 to 80 per cent.

Zentralblatt für innere Medizin, Leipsic

May 27, XXXII, No. 21, pp. 513-544

141 *Direct Determination of Free Acid in Stomach Content. (Wert des Fuld'schen Verfahrens zum Nachweis der Salzsäure im Mageninhalt.) E. Schütz.

141. **Direct Determination of Free Acid in the Stomach.**—Schütz discusses the method of determining the presence of free acid by the sounds of effervescence that follow when 2 gm. of sodium bicarbonate in 50 c.c. of water is ingested an hour after a test meal. (The method was described in detail in THE JOURNAL, Dec. 24, 1910, page 2274.) Schütz found positive findings extremely instructive and dependable in his examination of 100 patients, but negative findings were sometimes misleading.

Gazzetta degli Ospedali e delle Cliniche, Milan

May 28, XXXII, No. 64, pp. 675-690

142 *Etiology of Pellagra. (L'ipotesi di L. W. Sambon.) M. V. Carletti.
143 Puerperal Psychopathies. (Secondamento artificiale e psicopatia in puerperio.) P. Romeo.

May 30, No. 65, pp. 691-698

144 Salvarsan in Inherited Syphilis. P. Pennato.

June 1, No. 66, pp. 699-706

145 *Wassermann Reaction in Cholera and Syphilis. M. Gioseffi.

142. **Sandfly Transmission of Pellagra.**—Carletti criticizes Sambon's theory of the sandfly transmission of pellagra, saying that the analogies between pellagra and syphilis and kala-azar, on which Sambon bases much of his arguments, are not very pronounced while none has the seasonal aggravation of the symptoms in the spring which is one of the features of pellagra. He comments also on the difference in the anatomic and blood findings in these various diseases. Carletti thinks that Sambon has greater basis for his assumption of the parasitic origin in the efficacy of arsenic preparations in pellagra, which Babes, Gherardini and others have reported. On account of the impossibility of isolating the parasite to date, Sambon accepts that it is ultramicroscopic and that it is transmitted to man by a sandfly. Carletti points out, however, that no case is known in which a healthy person sojourning temporarily in a sandfly-infested or pellagra-infested region contracted pellagra from brief exposure to the fly, while this is of frequent occurrence in respect to malaria. Sambon's argument that sandflies are more prevalent during a rainy season and hence the greater prevalence of pellagra, might apply equally well to the corn theory, as the corn in such seasons is likely to be poorer and spoil more readily than in more favorable seasons. In conclusion Carletti declares that the parasitic theory has much in its favor and that every effort should be made to run this assumed parasite to earth, inoculating animals, especially anthropoid apes, with the blood or organ extracts of pellagrins and striving to infect the apes by the mediation of the special flies in question. (Roberts discusses Sambon's theory in THE JOURNAL, June 10, 1911, page 1713.)

145. **The Wassermann Reaction in Cholera and Syphilis.**—Gioseffi endorses the advantages of the differential reaction in dubious cases of cholera, especially when the germs are of comparatively slight virulence. His experience with the test shows further that the mothers of infants with inherited syphilis do not contract syphilis, because they are already syphilized, not because they are immune. Infants giving a negative reaction with symptoms suggestive of syphilis should be treated the same as if the reaction were positive. He cites some instructive cases including one of an infant with severe inherited syphilis and yet both mother and the alleged father showed no signs of syphilis or of the Wassermann reaction, suggesting that the paternity must be sought elsewhere, which the mother confessed was the fact.

Riforma Medica, Naples

May 15, XXVII, No. 20, pp. 533-560

146 *Gastroptosis and Gastroneuroses. (Gastropatie dinamiche ed organiche. XIV.) G. Rummo.

May 22, No. 21, pp. 561-588

147 *Toxic Dermatosis Under Salvarsan. (Tossidermie consecutive ad iniezioni di Salvarsan.) V. Fisichella.
148 *Improved Technic for Detection of Tubercle Bacilli in Urine. (La eccellenza del metodo di Ellermann ed Erlandsen par la ricerca del bacillo tubercolare nel sedimento urinario.) S. Martinelli.

May 29, No. 22, pp. 589-616

149 *Albumin in Sputum. (La ricerca dell'albumina negli espettorati. Sua importanza clinica.) G. H. Roger.
150 *Cysticercus Cellulosæ of the Tongue. L. Floravanti.

146. **Gastric Neuroses.**—Rummo comments on the fact that the muscular walls of all the hollow viscera are under the control of the nervous system, and consequently are liable to nervous disturbances without actual lesions. Treatment should aim to strengthen and give tone to the nervous system in general and especially the innervation of the organ in question, while at the same time measures should be applied

to reduce the irritability of the nerves innervating the organ. The mind and the body, the spiritual and the physical, are continually acting and reacting on each other, and in all the range of nervous troubles simulating the organic, treatment should be addressed to the mind first and foremost. Faith in ultimate recovery and the will to get cured are the most important elements in the cure. When the patient takes pleasure in eating proper food the battle is won.

147. **Toxic Dermatosis Under Salvarsan.**—Fisichella reported a few years ago a case of fatal mercurial dermatitis following subcutaneous mercurial treatment for syphilis, an evident idiosyncrasy. He here reports that two of the forty syphilitic patients whom he has treated with salvarsan developed a toxic dermatitis. One had intercostal herpes zoster come on thirteen days after an intramuscular injection of salvarsan. The symptoms were not quite so pronounced as in ordinary infectious herpes. The other patient had an itching erythema over the entire covered parts of the body. It subsided by the fifth day but returned again as the patient was given a course of Fowler's solution, the physician not knowing of the injection of salvarsan shortly before. De Luca has reported a similar case of herpes after injection of hectine.

148. **Determination of Tubercle Bacilli in the Urine.**—Martinelli extols the simplicity and reliability of the technic introduced by Ellermann and Erlandsen for detection of tubercle bacilli in urine sediment. It was described in THE JOURNAL, Sept. 19, 1908, page 1044.

149. A similar article was summarized in THE JOURNAL recently, May 27, page 1619.

150. **Cysticercus of the Tongue.**—The growth removed from the tongue contained the larva of the tapeworm of man, *Cysticercus cellulosæ*. The patient was a man 40 years old.

Upsala Läkareförenings Forhandlingar

Supplement, pp. 1-86

151 *Suggestions for Proposed Revision of Legislation on Marriage. (Upsala medicinska fakultets yttrande till kungl. medicinalstyrelsen med anledning af föreslående revision af äktenskapslagstiftningen.) C. Henschen.

151. **Proposed Revision of Legislation Regarding Marriage.**—The Swedish government consulted the Upsala medical association (*Läkareförening*) in regard to modifying the present laws regulating matrimony. A committee was appointed to study the various questions involved and the report of the committee forms a pamphlet of eighty-six pages, taking up in turn epilepsy, insanity, venereal disease, alcoholism, leprosy, tuberculosis, impotency, deaf-mutism and close blood relationship as affecting marriage, as a cause for degeneration and as a cause for divorce, with consideration of various other questions, including the minimal age and the operative sterilization of criminals.

Books Received

Books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for review in the interests of our readers and as space permits.

JAHRBUCH FÜR ORTHOPÄDISCHE CHIRURGIE. Von Dr. Paul Glaessner, Orthopädischer Assistent der chirurgischen Universitäts-Poliklinik in der Kgl. Charité zu Berlin. Mit einem Vorwort von Prof. Dr. Pels-Leusden, Oberarzt der chirurgischen Universitätsklinik und Leiter der chirurgischen Universitäts-Poliklinik in der Kgl. Charité zu Berlin. Vols. I and II; 1909 and 1910. Paper. Price, 10 marks. Pp. 114. Berlin: Julius Springer, 1911.

MONOGRAPH SERIES OF THE AMERICAN ASSOCIATION FOR THE CONSERVATION OF VISION. Vol. I. Douglas C. McMurtrie, General Editor. No. 1. Ophthalmia Neonatorum in Ten Massachusetts Cities. A Study by the Research Department of the Boston School for Social Workers. By Henry Copley Greene. Paper. Pp. 41. New York: American Association for the Conservation of Vision, 25 West Thirty-Ninth Street, 1911.

DISEASES OF THE EAR, NOSE AND THROAT. For the Family Physician and the Undergraduate Medical Student. By Henry Ottridge Reik, M.D., Associate in Ophthalmology and Otology in the Johns Hopkins University. Assisted by A. J. Neilson Reik, M.D., Surgeon in the Baltimore Eye, Ear and Throat Hospital, Baltimore. Cloth. Price, $3. Pp. 374, with 81 illustrations. New York: D. Appleton & Co., 1911.

THE MOUNT CLEMENS MINERAL BATHS. The Physical and Chemical Nature of the Waters, Their Physiologic Action, Their Therapeutic Effects in the Treatment of Diseased Conditions, and Various Other Information Pertinent to the "Cure" at Mount Clemens. By Dr. Waldemar T. Lungershausen, Mount Clemens, Mich. Paper. Pp. 34.

HYMN TO HYGIEA. English and German Text. Words and Music by John C. Hemmeter, M.D., PHIL.D., LL.D., Professor of Physiology, University of Maryland, Baltimore. Dedicated to Prof. William Henry Welch of the Johns Hopkins University. Paper. Price for Score, $1 net. New York: Carl Fischer, 1911.

DIE RÖNTGENSTRAHLEN IN DER GYNÄKOLOGIE MIT EINEM AUSBLICK AUF IHREN KÜNFTIGEN WERT FÜR SOZIALE UND SEXUELLE FRAGEN. Von Dr. Manfred Fraenkel, Charlottenburg. Paper. Price, 7.50 marks. Pp. 255, with 46 illustrations. Berlin: Richard Schoetz, Wilhelmstrasse 10, 1911.

ANATOMY OF THE BRAIN AND SPINAL CORD. By J. Ryland Whitaker, B.A., M.B. (Lond.), Fellow of the Royal College of Physicians, Edinburgh. Fourth Edition. Cloth. Price, 5 shillings 6 pence. Pp. 228, with 98 illustrations. Edinburgh: E. & S. Livingstone, 1911.

TUBERCULOSIS HOSPITAL AND SANATORIUM CONSTRUCTION. Written for the National Association for the Study and Prevention of Tuberculosis. By Thomas Spees Carrington, M.D., Assistant Secretary. Paper. Pp. 164. New York: 105 East Twenty-Second Street, 1911.

RECORDS OF THE NEW HAMPSHIRE MEDICAL SOCIETY. From Its Organization in 1791 to the Year 1854. Published by Authority of the Society. Cloth. Pp. 439. Irving A. Watson, Chairman of Committee, Concord, N. H., 1911.

FIFTEENTH REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF MAINE. For the Four Years Ending Dec. 31, 1909 (1906-1909). Cloth. Pp. 318. A. G. Young, Secretary, Augusta, Maine, 1911.

A NEW IDEA IN SANITATION. The Great Menace to Public Health that Covers Every Mile of Railroad Track in the United States and Other Countries. Compiled by J. C. Salter, New York. Paper. Pp. 89. 1911.

TWENTY-FIRST ANNUAL REPORT OF THE EYE, EAR, NOSE AND THROAT HOSPITAL OF NEW ORLEANS, LA. Jan. 1, 1910, to Dec. 31, 1910. Paper. Pp. 76. Joseph A. Hincks, Secretary, 1911.

STUDIES FROM THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH. Reprints. Volume XII. Paper. New York: The Rockefeller Institute for Medical Research, 1911.

VERZEICHNIS DER BEHÖRDEN, LEHRER, ANSTALTEN UND STUDIERENDEN DER HOCHSCHULE ZÜRICH IM SOMMERSEMESTER 1911. Paper. Pp. 44. Zurich: Fritz Amberger, 1911.

New Patents

Recent Patents of Interest to Physicians

973998 Preparation of eugenol and albumin. Hans Belart, Huddersfield, England.
973634 Fumigating apparatus, Cornelius A. De Pree, A. Leenhouts and J. J. Hersen, Holland, Mich.
973770 Massage apparatus. Benjamin L. Gates, Chicago.
973992 Producing saturated lime water. Harry H. Sutro, New York.
974367 Massaging implement. Anna M. Dunder, Wilbur, Neb.
974494 Crutch. Chester L. Jensen and L. A. Lahey, Spokane, Wash.
974495 Hospital bed. Fred E. R. Jones and R. S. Barnum, Chicago.
974514 Sterilizing device. Henry W. Patrick, Elyria, Ohio.
974182 Obtaining olefin or saturated acids. Isaac K. Phelps, New Haven, Conn.
974294 Surgical bandage. Edmund M. Pond, Rutland, Vt.
974597 Manufacture of malted preparations from cereals. Louis C. Reese, Southfields, London, England.
974298 Disinfecting apparatus. Charles B. Rider, Ocean City, N. J.
974531 Syringe. Frederick Schwarz and H. Tauss, Vienna, Austria-Hungary.
975016 Hammock for douche and similar baths. Godfried L. H. Burger, Boston.
975029 Artificial limb. James A. Galvin, Astoria, N. Y.
975129 Stable mixture for producing hydrogen peroxid. Reinhold Gruter and H. Pohl, Charlottenburg, Germany.
974879 Surgical instrument. George E. Gwinn, San Antonio, Tex.
974789 Ozonizer. David S. Henney, Newark, N. J.
975151 Formic acid. Max Neumann, Wiesbaden, Germany.
975282 Sterilizer. George H. Reeves, Flat River, Mo.
975925 Disinfecting apparatus. Leon E. Bach, Rochester, N. Y.
975835 Electrolytically treating tannic infusions of plants. Hermann Damkohler and H. Schwindt, Bremen, Germany.
976051 Milk extract of wild spikenard. Frank H. Davis, Butler, Pa.
975854 Receptacle for sputum. William L. Gerard, Bellingham, Wash.
975866 Formic acid. Henry Howard, Boston.
975874 Apparatus for preparing infusions. Herrmann E. Korn and E. Kuhn, East Orange, N. J.
975436 Vibratory massage apparatus. Fred R. Kunkel, Edgewood Park, Pa.
975439 Artificial limb. Theodore M. Lawrence, Seattle, Was.
975702 Massaging apparatus. Eugene J. McCarthy, New York.
975447 Emulsify.ng oils, fats and the like. Armand Muller-Jacobs, New York.
975888 Artificial leg. Harry T. Odgers, Columbus, Ohio.
975996 Stretcher. Walter B. Reed, White Cloud, Mich.
975814 Mouth tablet. Albert Westlake, New York.